

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Terri Choy

AECOM

1001 Bishop Street  
Honolulu HI 96813

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## JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

## JOB NUMBER

580-123973-1

# Eurofins Seattle

## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

## Authorization



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# Definitions/Glossary

Client: AECOM

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-123973-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

## Glossary

**Abbreviation** These commonly used abbreviations may or may not be present in this report.

☒	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

**CASE NARRATIVE**  
**Client: AECOM**  
**Project: Red Hill - AFFF Assessment Sampling**  
**Report Number: 580-123973-1**

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

**RECEIPT**

Three samples were received on 2/27/2023 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3° C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

**GLYCOLS**

**Samples AF-RHMW03-WGN01LF-2302W3 (580-123973-1), AF-RHMW225401-WGN01B-2302W3 (580-123973-2) and AF-RHMW02-WGN01LF-2302W3 (580-123973-3) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI.**  
The samples were analyzed on 03/01/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Detection Summary

Client: AECOM

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-123973-1

**Client Sample ID: AF-RHMW03-WGN01LF-2302W3**

**Lab Sample ID: 580-123973-1**

No Detections.

**Client Sample ID: AF-RHMW225401-WGN01B-2302W3**

**Lab Sample ID: 580-123973-2**

No Detections.

**Client Sample ID: AF-RHMW02-WGN01LF-2302W3**

**Lab Sample ID: 580-123973-3**

No Detections.

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: AECOM

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-123973-1

**Client Sample ID: AF-RHMW03-WGN01LF-2302W3**

**Lab Sample ID: 580-123973-1**

Matrix: Water

Date Collected: 02/23/23 12:15

Date Received: 02/27/23 10:00

**Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)**

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			03/01/23 00:50	1

**Client Sample ID: AF-RHMW225401-WGN01B-2302W3**

**Lab Sample ID: 580-123973-2**

Matrix: Water

Date Collected: 02/22/23 12:30

Date Received: 02/27/23 10:00

**Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)**

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			03/01/23 02:00	1

**Client Sample ID: AF-RHMW02-WGN01LF-2302W3**

**Lab Sample ID: 580-123973-3**

Matrix: Water

Date Collected: 02/23/23 10:50

Date Received: 02/27/23 10:00

**Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)**

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			03/01/23 02:23	1

# Default Detection Limits

Client: AECOM

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-123973-1

## Method: 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	LOQ	DL	Units
2-(2-Butoxyethoxy)ethanol	5.0	1.1	mg/L

# QC Sample Results

Client: AECOM

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-123973-1

## Method: 8015C GLY - Glycols- Direct Injection (GC/FID)

**Lab Sample ID:** MB 680-765364/10

**Matrix:** Water

**Analysis Batch:** 765364

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			02/28/23 16:37	1

**Lab Sample ID:** LCS 680-765364/6

**Matrix:** Water

**Analysis Batch:** 765364

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	20.0	22.7		mg/L		114	50 - 150

**Lab Sample ID:** LCSD 680-765364/7

**Matrix:** Water

**Analysis Batch:** 765364

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	20.0		mg/L		100	50 - 150	13	50

**Lab Sample ID:** 580-123973-1 MS

**Matrix:** Water

**Analysis Batch:** 765364

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	3.0	U M	20.0	21.7		mg/L		108	50 - 150

**Lab Sample ID:** 580-123973-1 MSD

**Matrix:** Water

**Analysis Batch:** 765364

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	3.0	U M	20.0	18.5		mg/L		92	50 - 150	16	50

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# QC Association Summary

Client: AECOM

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-123973-1

## GC Semi VOA

### Analysis Batch: 765364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-123973-1	AF-RHMW03-WGN01LF-2302W3	Total/NA	Water	8015C GLY	
580-123973-2	AF-RHMW225401-WGN01B-2302W3	Total/NA	Water	8015C GLY	
580-123973-3	AF-RHMW02-WGN01LF-2302W3	Total/NA	Water	8015C GLY	
MB 680-765364/10	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-765364/6	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-765364/7	Lab Control Sample Dup	Total/NA	Water	8015C GLY	
580-123973-1 MS	AF-RHMW03-WGN01LF-2302W3	Total/NA	Water	8015C GLY	
580-123973-1 MSD	AF-RHMW03-WGN01LF-2302W3	Total/NA	Water	8015C GLY	

# Lab Chronicle

Client: AECOM

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-123973-1

**Client Sample ID: AF-RHMW03-WGN01LF-2302W3**

**Lab Sample ID: 580-123973-1**

Matrix: Water

Date Collected: 02/23/23 12:15

Date Received: 02/27/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	765364	GEM	EET SAV	03/01/23 00:50

**Client Sample ID: AF-RHMW225401-WGN01B-2302W3**

**Lab Sample ID: 580-123973-2**

Matrix: Water

Date Collected: 02/22/23 12:30

Date Received: 02/27/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	765364	GEM	EET SAV	03/01/23 02:00

**Client Sample ID: AF-RHMW02-WGN01LF-2302W3**

**Lab Sample ID: 580-123973-3**

Matrix: Water

Date Collected: 02/23/23 10:50

Date Received: 02/27/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	765364	GEM	EET SAV	03/01/23 02:23

## Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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# Accreditation/Certification Summary

Client: AECOM

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-123973-1

## Laboratory: Eurofins Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C GLY		Water	2-(2-Butoxyethoxy)ethanol

# Method Summary

Client: AECOM

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-123973-1

Method	Method Description	Protocol	Laboratory
8015C GLY	Glycols- Direct Injection (GC/FID)	SW846	EET SAV

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# Sample Summary

Client: AECOM

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-123973-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-123973-1	AF-RHMW03-WGN01LF-2302W3	Water	02/23/23 12:15	02/27/23 10:00
580-123973-2	AF-RHMW225401-WGN01B-2302W3	Water	02/22/23 12:30	02/27/23 10:00
580-123973-3	AF-RHMW02-WGN01LF-2302W3	Water	02/23/23 10:50	02/27/23 10:00

## GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.:

Instrument ID: CVGG2

Analysis Batch Number: 764742

Lab Sample ID: IC 680-764742/5

Client Sample ID:

Date Analyzed: 02/23/23 18:06

Lab File ID: GB23005.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.29	Baseline Smoothing	SK9U	02/24/23 11:11
Tetraethylene Glycol	11.77	Baseline Smoothing	SK9U	02/24/23 11:16

Lab Sample ID: IC 680-764742/6

Client Sample ID:

Date Analyzed: 02/23/23 18:29

Lab File ID: GB23006.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.28	Baseline Smoothing	SK9U	02/24/23 11:11
Ethylene glycol	6.53	Baseline Smoothing	SK9U	02/24/23 11:10
Tetraethylene Glycol	11.77	Baseline Smoothing	SK9U	02/24/23 11:16

Lab Sample ID: IC 680-764742/7

Client Sample ID:

Date Analyzed: 02/23/23 18:53

Lab File ID: GB23007.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.29	Baseline Smoothing	SK9U	02/24/23 11:11
Tetraethylene Glycol	11.77	Baseline Smoothing	SK9U	02/24/23 11:15

Lab Sample ID: ICIS 680-764742/8

Client Sample ID:

Date Analyzed: 02/23/23 19:16

Lab File ID: GB23008.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.36	Baseline Smoothing	SK9U	02/24/23 11:12
Ethylene glycol	6.55	Baseline Smoothing	SK9U	02/24/23 11:09
Tetraethylene Glycol	11.77	Baseline Smoothing	SK9U	02/24/23 11:15

## GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.:

Instrument ID: CVGG2

Analysis Batch Number: 764742

Lab Sample ID: IC 680-764742/9

Client Sample ID:

Date Analyzed: 02/23/23 19:39

Lab File ID: GB23009.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.27	Baseline Smoothing	SK9U	02/24/23 11:12
Tetraethylene Glycol	11.77	Baseline Smoothing	SK9U	02/24/23 11:15

Lab Sample ID: IC 680-764742/10

Client Sample ID:

Date Analyzed: 02/23/23 20:02

Lab File ID: GB23010.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.26	Baseline Smoothing	SK9U	02/24/23 11:12
Ethylene glycol	6.54	Baseline Smoothing	SK9U	02/24/23 11:12
Tetraethylene Glycol	11.77	Baseline Smoothing	SK9U	02/24/23 11:15

Lab Sample ID: IC 680-764742/11

Client Sample ID:

Date Analyzed: 02/23/23 20:25

Lab File ID: GB23011.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.26	Baseline Smoothing	SK9U	02/24/23 11:13
Ethylene glycol	6.56	Baseline Smoothing	SK9U	02/24/23 11:13
Tetraethylene Glycol	11.77	Baseline Smoothing	SK9U	02/24/23 11:14

Lab Sample ID: ICV 680-764742/12 CCV

Client Sample ID:

Date Analyzed: 02/23/23 20:49

Lab File ID: GB23012.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.26	Baseline Smoothing	SK9U	02/24/23 11:14
Ethylene glycol	6.54	Baseline Smoothing	SK9U	02/24/23 11:13
Tetraethylene Glycol	11.77	Baseline Smoothing	SK9U	02/24/23 11:17

## GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.:

Instrument ID: CVGG2

Analysis Batch Number: 765364

Lab Sample ID: CCVIS 680-765364/5

Client Sample ID:

Date Analyzed: 02/28/23 14:40

Lab File ID: GB28005.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	6.36	Incomplete Integration	SK9U	03/01/23 15:13
Ethylene glycol	6.56	Incomplete Integration	SK9U	03/01/23 15:13

Lab Sample ID: MB 680-765364/10

Client Sample ID:

Date Analyzed: 02/28/23 16:37

Lab File ID: GB28010.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-(2-Butoxyethoxy)ethanol		Invalid Compound ID	SK9U	03/01/23 15:15

Lab Sample ID: 580-123973-1

Client Sample ID: AF-RHMW03-WGN01LF-2302W3

Date Analyzed: 03/01/23 00:50

Lab File ID: GB28031.D

GC Column: J&amp;W DB WAX

ID: 0.45 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-(2-Butoxyethoxy)ethanol		Invalid Compound ID	SK9U	03/01/23 15:18

## REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG_Gly_CAL_00048	05/21/23		o2si, Lot 480919		(Purchased Reagent)		2,2'-Oxybisethanol	2000 ug/mL
							2-(2-Butoxyethoxy)ethanol	2000 ug/mL
							2-Butoxyethanol	2000 ug/mL
							4-Hydroxy-4-methyl-2-pentanone	2000 ug/mL
							Dipropylene Glycol Methyl Ether	2000 ug/mL
							Ethanol, 2-propoxy	2000 ug/mL
							Ethylene glycol	2000 ug/mL
							Propylene glycol	2000 ug/mL
							Tetraethylene Glycol	4000 ug/mL
							Triethylene Glycol	2000 ug/mL
SG_GLY_ITSD_00106	05/22/23		Agilent, Lot 0006720623		(Purchased Reagent)		n-Heptyl Alcohol	5000 ug/mL
SG_GlyICV_00051	07/01/23		o2si, Lot 454407		(Purchased Reagent)		2-(2-Butoxyethoxy)ethanol	2000 ug/mL
SG_GlyICV_00055	08/21/23		o2si, Lot 454407		(Purchased Reagent)		2-(2-Butoxyethoxy)ethanol	2000 ug/mL

Reagent

---

**SG\_Gly\_CAL\_00048**



ISO/IEC 17025 Accredited  
Chemical Testing Lab  
Cert. No. 3031.01



ISO 17034 Accredited  
Reference Material Producer  
Cert. No. 3031.02

Rev 0

## Certificate of Analysis

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Catalog No.	Lot No.	Storage	Solvent	Date Received	Exp. Date
G34-120070-04	480919	≤ -10 °C	P/T Methanol		2-May-2024

### Description:

ISO 17034 -Custom Volatiles Mix, 105-12, 2000 & 4,000 mg/L, 1 mL

### Container:

1 ml Ampule, Amber Glass

### Certified Values:

The certified value is based on gravimetric and volumetric preparation of this Certified Reference Material (CRM). This CRM has been confirmed by GC/MS, GC, HPLC, UPLC/HRAM-MS, UV/VIS, Enzymatic, and/or wet chemistry techniques using internally developed method(s) against independent source(s). The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2. The purity of neat materials not traceable to an ISO 17034:2016 accredited Reference Material Provider is traceable to internal analysis by GC, GC/MS, HPLC, Enzymatic, or wet chemistry techniques and compared to a National Metrological Institute such as NIST where feasible.

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration
2-butoxyethanol	111-76-2	99.6	311.9.2P	1986 ± 100 mg/L
diethylene glycol butyl ether	112-34-5	99.8	2323.7.2P	2008 ± 100 mg/L
propyl cellosolve	2807-30-9	99.9	1570.7.2P	1980 ± 100 mg/L
dipropylene glycol monomethyl ether	34590-94-8	99.7	2333.7.2P	2014 ± 100 mg/L
ethylene glycol	107-21-1	100	307.201.1P	1968 ± 99 mg/L
di(ethylene glycol)	111-46-6	99.5	309.7.2P	1994 ± 100 mg/L
tri(ethylene glycol)	112-27-6	99.9	310.7.2.1.1P	1974 ± 110 mg/L
4-Hydroxy-4-methyl-2-pentanone	123-42-2	98	2334.286.1P	1991 ± 110 mg/L
1,2-propanediol	57-55-6	99.5	306.9.3P	1998 ± 100 mg/L
tetraethylene glycol	112-60-7	98	3754.7.1P	3959 ± 200 mg/L

### Intended Uses:

This CRM is intended for use as a calibration standard or a quality control standard for chromatography equipment such as GC, GC/MS, HPLC, and HPLC/MS. It may also be used for various USEPA, NIOSH and ASTM methods.

Recommended storage container for ampuled products after opening is a 12 mm x 32 mm amber vial with screw cap Teflon lined silicon septum. The modeled % change per day can be calculated using the following:

# Certificate of Analysis

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Catalog No. G34-120070-04

Lot No. 480919

Expiration Date 2 -May-2024

$$\% \text{ Change} = 116192x^{-2.578} + 40.383e^{-0.03y}$$

where x = boiling point of the most volatile analyte in the mix (in degrees K)  
y = boiling point of the solvent (in degrees K)

This model assumes the container is stored at -10 °C and is unopened during storage. The user should determine what the acceptable error for their process is and calculate the maximum number of days the opened ampule should be stored.

## **Method of Preparation:**

This standard was prepared gravimetrically using balances calibrated with National Institute of Standards and Technology (NIST) traceable weights (NIST Test Numbers 822/273070-06, 822/275141-07, 822/278993-10). Only calibrated Class A volumetric glassware and/or calibrated syringes were used to prepare this standard. Raw materials may have been checked for stoichiometry and purity prior to use. This standard has been analyzed against an independent source.

## **Packaging and Storage:**

The solution should be stored according to the following storage requirements: ≤ -10 °C

Once the product is opened, it should be transferred to a vial with minimum head space if the product was received in a sealed ampule.

## **Glassware Calibration:**

Only Class A glassware and/or calibrated syringes are used in the manufacture and quality control of standards. All glassware is calibrated using NIST traceable weights.

## **Weights and Balance Calibration:**

Weights used to perform daily checks on balances are calibrated annually by the State of South Carolina Department of Agriculture Metrology Laboratory and are traceable to NIST. Balances are checked daily in accordance to procedure O2-LB-G-002. Balances are calibrated annually by an ISO/IEC 17025:2017 accredited metrology service.

## **Homogeneity:**

Homogeneity has been established in accordance with internal procedure O2-QS-011 and has a maximum uncertainty of 0.1%. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC 17025:2017 and ISO 17034:2016. The homogeneity of this CRM is valid for sample sub-sizes that the end user can quantitatively reproduce.

## **Hazardous Information:**

Refer to MSDS.

## **Calculation of Uncertainty:**

The following equations are used to calculate the value of the expanded uncertainty:

$u = ku_c$  u = Expanded Uncertainty, k = the coverage factor at the 95% confidence level, k = 2,  $u_c$  = the combined uncertainty

$u_c = (u_{\text{char}}^2 + u_{\text{tran}}^2 + u_{\text{homo}}^2 + u_{\text{ls}}^2)^{1/2}$  where  $u_i$  are the individual uncertainty components for manufacturing, transportation, homogeneity, and shelf life. While no significant uncertainty was detected in the replicates, a minimum contribution to

Manufactured By:



Brian Stokes  
3 -May-2022

Production Chemist I

Certified By:



Tyler Sherman  
14 -Jun-2022

Quality Control Chemist I

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Released By:



Susan Mathews  
14 -Jun-2022

Quality Control Team Lead

# Certificate of Analysis

Page 3 of 3

Catalog No. G34-120070-04

Lot No. 480919

Expiration Date 2-May-2024

uncertainty was added for homogeneity and long term stability as described in ISO Guide 35:2017.

## **Expiration Information:**

The stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. These tests include the effect of temperature and packaging on the product. Studies on the short term instability have determined no contribution to instability as observed on the concentration under controlled transportation conditions. This standard is guaranteed until 2-May-2024

## **Quality Standard Documentation:**

- ISO/IEC 17025:2017 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 3031.01
- ISO 17034:2016 "General Requirements for the Competence of Reference Material Producers" - Reference Material Production - Accredited A2LA Certificate Number 3031.02

### **Manufactured By:**



Brian Stokes

3-May-2022

**Production Chemist I**

### **Certified By:**



Tyler Sherman

14-Jun-2022

**Quality Control Chemist I**

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### **Released By:**



Susan Mathews

14-Jun-2022

**Quality Control Team Lead**

Reagent

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**SG\_GLY\_ISTD\_00106**

**Reference Material Certificate**  
**Product Information Sheet**

**Product Name:** Custom Standard

**Lot Number:** 0006720623

**Product Number:** CUS-6046

**Lot Issue Date:** 15-Dec-2022

**Storage Conditions:** Store at Room Temperature (15° to 30°C).

**Expiration Date:** 31-Jan-2025

Component Name	CERTIFIED VALUES		CAS#	Analyte Lot
	Concentration	Expanded Uncertainty		
n-heptanol	5001	± 25 µg/mL	000111-70-6	RM04540

**Matrix:** methanol (methyl alcohol)

**Description:**

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This analytical reference standard was utilized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Safety:**

Refer to the Safety Data Sheet on [www.agilent.com](http://www.agilent.com) for information regarding this analytical reference material.

**Intended Use:**

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Expiration of Certification:**

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.



Trusted Answers

**Maintenance of Certification:**

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

**Sample lot approver:**

A handwritten signature in black ink, appearing to read "M. Bourgeois".  
Monica Bourgeois  
QMS Representative



ISO 17034 Cert  
No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015 Quality Management System. Cert# 951215321

Page: 2 of 2

[www.agilent.com/quality/](http://www.agilent.com/quality/)  
CSD-QA-015.1

ISO 17025

Reagent

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**SG\_GlyICV\_00051**



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Chemical Testing Lab  
Cert. No. 3031.01



ISO 17034 Accredited  
Reference Material Producer  
Cert. No. 3031.02

Rev 0

## Certificate of Analysis

Page 1 of 3

Catalog No.	Lot No.	Storage	Solvent	Date Received	Exp. Date
G34-120070-04-SS	454407	≤ -10 °C	P/T Methanol		1-Jul-2023

### Description:

ISO 17034 -Custom Volatiles Mix,105-12, Second Source, 2000 & 4,000 mg/L, 1 mL

**Container:**  
1 ml Ampule, Amber Glass

### Certified Values:

The certified value is based on gravimetric and volumetric preparation of this Certified Reference Material (CRM). This CRM has been confirmed by GC/MS, GC, HPLC, UPLC/HRAM-MS, UV/VIS, Enzymatic, and/or wet chemistry techniques using internally developed method(s) against independent source(s). The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2. The purity of neat materials not traceable to an ISO 17034:2016 accredited Reference Material Provider is traceable to internal analysis by GC, GC/MS, HPLC, Enzymatic, or wet chemistry techniques and compared to a National Metrological Institute such as NIST where feasible.

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration
2-butoxyethanol	111-76-2	99.5	311.7.1.1S	1994 ± 100 mg/L
diethylene glycol butyl ether	112-34-5	99.8	2323.7.2.1S	1992 ± 100 mg/L
2-propoxyethanol	2807-30-9	99.5	1570.7.1S	1998 ± 110 mg/L
dipropylene glycol monomethyl ether	34590-94-8	99.7	2333.7.2.1S	1998 ± 100 mg/L
ethylene glycol	107-21-1	100	307.201.1.1S	2016 ± 100 mg/L
di(ethylene glycol)	111-46-6	99.9	309.7.1.1S	1998 ± 100 mg/L
tri(ethylene glycol)	112-27-6	99.9	310.7.3.1S	2010 ± 100 mg/L
4-Hydroxy-4-methyl-2-pentanone	123-42-2	98	2334.286.1.1S	2003 ± 110 mg/L
1,2-propanediol	57-55-6	99.6	306.370.1.1S	2004 ± 110 mg/L
tetraethylene glycol	112-60-7	98	3754.7.1.1S	4049 ± 200 mg/L

### Intended Uses:

This CRM is intended for use as a calibration standard or a quality control standard for chromatography equipment such as GC, GC/MS, HPLC, and HPLC/MS. It may also be used for various USEPA, NIOSH and ASTM methods.

Recommended storage container for ampuled products after opening is a 12 mm x 32 mm amber vial with screw cap Teflon lined silicon septum. The modeled % change per day can be calculated using the following:

# Certificate of Analysis

Page 2 of 10

Catalog No. G34-120070-04-SS

Lot No. 454407

Expiration Date 1-Jul-2023

$$\% \text{ Change} = 116192x^{-2.578} + 40.383e^{-0.03y}$$

where x = boiling point of the most volatile analyte in the mix (in degrees K)

y = boiling point of the solvent (in degrees K)

This model assumes the container is stored at -10 °C and is unopened during storage. The user should determine what the acceptable error for their process is and calculate the maximum number of days the opened ampule should be stored.

## Method of Preparation:

This standard was prepared gravimetrically using balances calibrated with National Institute of Standards and Technology (NIST) traceable weights (NIST Test Numbers 822/273070-06, 822/275141-07, 822/278993-10). Only calibrated Class A volumetric glassware and/or calibrated syringes were used to prepare this standard. Raw materials may have been checked for stoichiometry and purity prior to use. This standard has been analyzed against an independent source.

## Packaging and Storage:

The solution should be stored according to the following storage requirements: ≤ -10 °C

Once the product is opened, it should be transferred to a vial with minimum head space if the product was received in a sealed ampule.

## Glassware Calibration:

Only Class A glassware and/or calibrated syringes are used in the manufacture and quality control of standards. All glassware is calibrated using NIST traceable weights.

## Weights and Balance Calibration:

Weights used to perform daily checks on balances are calibrated annually by the State of South Carolina Department of Agriculture Metrology Laboratory and are traceable to NIST. Balances are checked daily in accordance to procedure O2-LB-G-002. Balances are calibrated annually by an ISO/IEC 17025:2017 accredited metrology service.

## Homogeneity:

Homogeneity has been established in accordance with internal procedure O2-QS-011 and has a maximum uncertainty of 0.1%. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC 17025:2017 and ISO 17034:2016. The homogeneity of this CRM is valid for sample sub-sizes that the end user can quantitatively reproduce.

## Hazardous Information:

Refer to MSDS.

## Calculation of Uncertainty:

The following equations are used to calculate the value of the expanded uncertainty:

$u = ku_c$     u = Expanded Uncertainty, k = the coverage factor at the 95% confidence level, k = 2,  $u_c$  = the combined uncertainty  
 $u_c = (u_{\text{char}}^2 + u_{\text{tran}}^2 + u_{\text{homo}}^2 + u_{\text{ts}}^2)^{1/2}$  where  $u_i$  are the individual uncertainty components for manufacturing, transportation, homogeneity, and shelf life. While no significant uncertainty was detected in the replicates, a minimum contribution to

Manufactured By:

Jared Ball

1 -Jul-2021

Production Chemist I

Certified By:

Claire Desrochers

7 -Jul-2021

Quality Control Chemist I

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Released By:

Susan Mathews

8 -Jul-2021

Quality Control Team Lead

# Certificate of Analysis

Page 3 of 3

Catalog No. G34-120070-04-SS

Lot No. 454407

Expiration Date 1 -Jul-2023

uncertainty was added for homogeneity and long term stability as described in ISO Guide 35:2017.

## **Expiration Information:**

The stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. These tests include the effect of temperature and packaging on the product. Studies on the short term instability have determined no contribution to instability as observed on the concentration under controlled transportation conditions. This standard is guaranteed until 1-Jul-2023

## **Quality Standard Documentation:**

- ISO/IEC 17025:2017 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 3031.01
- ISO 17034:2016 "General Requirements for the Competence of Reference Material Producers" - Reference Material Production - Accredited A2LA Certificate Number 3031.02

Manufactured By:

Jared Ball

1 -Jul-2021

Production Chemist I

Certified By:

Claire Desrochers

7 -Jul-2021

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Released By:

Susan Mathews

8 -Jul-2021

Quality Control Team Lead



Reagent

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**SG\_GlyICV\_00055**



ISO/IEC 17025 Accredited  
Chemical Testing Lab  
Cert. No. 3031.01



ISO 17034 Accredited  
Reference Material Producer  
Cert. No. 3031.02

Rev 0

## Certificate of Analysis

Page 1 of 3

Catalog No.	Lot No.	Storage	Solvent	Date Received	Exp. Date
G34-120070-04-SS	454407	≤ -10 °C	P/T Methanol		1-Jul-2023

### Description:

ISO 17034 -Custom Volatiles Mix,105-12, Second Source, 2000 & 4,000 mg/L, 1 mL

**Container:**  
1 ml Ampule, Amber Glass

### Certified Values:

The certified value is based on gravimetric and volumetric preparation of this Certified Reference Material (CRM). This CRM has been confirmed by GC/MS, GC, HPLC, UPLC/HRAM-MS, UV/VIS, Enzymatic, and/or wet chemistry techniques using internally developed method(s) against independent source(s). The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2. The purity of neat materials not traceable to an ISO 17034:2016 accredited Reference Material Provider is traceable to internal analysis by GC, GC/MS, HPLC, Enzymatic, or wet chemistry techniques and compared to a National Metrological Institute such as NIST where feasible.

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ethylene glycol	107-21-1	100	307.201.1.1S	2016 ± 100 mg/L
di(ethylene glycol)	111-46-6	99.9	309.7.1.1S	1998 ± 100 mg/L
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tetraethylene glycol	112-60-7	98	3754.7.1.1S	4049 ± 200 mg/L

### Intended Uses:

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Recommended storage container for ampuled products after opening is a 12 mm x 32 mm amber vial with screw cap Teflon lined silicon septum. The modeled % change per day can be calculated using the following:

# Certificate of Analysis

Page 2 of 2

Catalog No. G34-120070-04-SS

Lot No. 454407

Expiration Date 1-Jul-2023

$$\% \text{ Change} = 116192x^{-2.578} + 40.383e^{-0.03y}$$

where x = boiling point of the most volatile analyte in the mix (in degrees K)

y = boiling point of the solvent (in degrees K)

This model assumes the container is stored at -10 °C and is unopened during storage. The user should determine what the acceptable error for their process is and calculate the maximum number of days the opened ampule should be stored.

## Method of Preparation:

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## Packaging and Storage:

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## Homogeneity:

Homogeneity has been established in accordance with internal procedure O2-QS-011 and has a maximum uncertainty of 0.1%. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC 17025:2017 and ISO 17034:2016. The homogeneity of this CRM is valid for sample sub-sizes that the end user can quantitatively reproduce.

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The following equations are used to calculate the value of the expanded uncertainty:

$u = ku_c$     u = Expanded Uncertainty, k = the coverage factor at the 95% confidence level, k = 2,  $u_c$  = the combined uncertainty  
 $u_c = (u_{\text{char}}^2 + u_{\text{tran}}^2 + u_{\text{homo}}^2 + u_{\text{ts}}^2)^{1/2}$  where  $u_i$  are the individual uncertainty components for manufacturing, transportation, homogeneity, and shelf life. While no significant uncertainty was detected in the replicates, a minimum contribution to

Manufactured By:

Jared Ball

1 -Jul-2021

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Released By:

Susan Mathews

8 -Jul-2021

Quality Control Team Lead

# Certificate of Analysis

Page 3 of 3

Catalog No. G34-120070-04-SS

Lot No. 454407

Expiration Date 1 -Jul-2023

uncertainty was added for homogeneity and long term stability as described in ISO Guide 35:2017.

## **Expiration Information:**

The stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. These tests include the effect of temperature and packaging on the product. Studies on the short term instability have determined no contribution to instability as observed on the concentration under controlled transportation conditions. This standard is guaranteed until 1-Jul-2023

## **Quality Standard Documentation:**

- ISO/IEC 17025:2017 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 3031.01
- ISO 17034:2016 "General Requirements for the Competence of Reference Material Producers" - Reference Material Production - Accredited A2LA Certificate Number 3031.02

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8 -Jul-2021

Quality Control Team Lead



# **Method 8015C - DAI Glycols**

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**Glycols -Direct Injection (GC/FID) -  
Method 8015C**

FORM III  
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: GB28006.D

Lab ID: LCS 680-765364/6 Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	22.7	114	50-150	

# Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM III  
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: GB28007.D

Lab ID: LCSD 680-765364/7 Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD %	REC	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy)ethanol	20.0	20.0	100	13	50	50-150	

# Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM III  
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: GB28032.D

Lab ID: 580-123973-1 MS Client ID: AF-RHMW03-WGN01LF-2302W3 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	3.0 U	21.7	108	50-150	

# Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM III  
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: GB28033.D

Lab ID: 580-123973-1 MSD Client ID: AF-RHMW03-WGN01LF-2302W3 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD %	REC	QC LIMITS		#
					RPD	REC	
2-(2-Butoxyethoxy)ethanol	20.0	18.5	92	16	50	50-150	

# Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM IV  
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-123973-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: MB 680-765364/10  
Matrix: Water Date Extracted: \_\_\_\_\_  
Lab File ID: (1) GB28010.D Lab File ID: (2) \_\_\_\_\_  
Date Analyzed: (1) 02/28/2023 16:37 Date Analyzed: (2) \_\_\_\_\_  
Instrument ID: (1) CVGG2 Instrument ID: (2) \_\_\_\_\_  
GC Column: (1) J&W DB WAX ID: 0.45 (mm) GC Column: (2) \_\_\_\_\_ ID: \_\_\_\_\_

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-765364/6	02/28/2023 15:04	
	LCSD 680-765364/7	02/28/2023 15:27	
AF-RHMW03-WGN01LF-2302W3	580-123973-1	03/01/2023 00:50	
AF-RHMW03-WGN01LF-2302W3 MS	580-123973-1 MS	03/01/2023 01:13	
AF-RHMW03-WGN01LF-2302W3 MSD	580-123973-1 MSD	03/01/2023 01:37	
AF-RHMW225401-WGN01B-2302W3	580-123973-2	03/01/2023 02:00	
AF-RHMW02-WGN01LF-2302W3	580-123973-3	03/01/2023 02:23	

FORM VIII  
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-123973-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 680-764742/8 Date Analyzed: 02/23/2023 19:16  
 Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)  
 Lab File ID (Standard): GB23008.D Heated Purge: (Y/N) N  
 Calibration ID: 89990

	nHPA		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	4583875	4.23				
UPPER LIMIT	9167750	4.73				
LOWER LIMIT	2291938	3.73				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 680-764742/12		4693584	4.23			
CCV						

nHPA = n-Heptyl Alcohol

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-123973-1  
SDG No.: \_\_\_\_\_  
Sample No.: CCVIS 680-765364/5 Date Analyzed: 02/28/2023 14:40  
Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm)  
Lab File ID (Standard): GB28005.D Heated Purge: (Y/N) N  
Calibration ID: 89990

	nHPA		#	RT #	#	RT #
	AREA #	RT #				
12/24 HOUR STD	4249128	4.22				
UPPER LIMIT	8498256	4.72				
LOWER LIMIT	2124564	3.72				
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 680-765364/6		4538995	4.22			
LCSD 680-765364/7		5307196	4.21			
MB 680-765364/10		5112288	4.21			
CCV 680-765364/26		5516164	4.20			
580-123973-1	AF-RHMW03-WGN01LF-2 302W3	5515670	4.20			
580-123973-1 MS	AF-RHMW03-WGN01LF-2 302W3 MS	4828113	4.21			
580-123973-1 MSD	AF-RHMW03-WGN01LF-2 302W3 MSD	5483302	4.21			
580-123973-2	AF-RHMW225401-WGN01 B-2302W3	5678402	4.21			
580-123973-3	AF-RHMW02-WGN01LF-2 302W3	6015723	4.20			
CCV 680-765364/37		5732434	4.20			

nHPA = n-Heptyl Alcohol

Area Limit = 50%-200% of internal standard area  
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Client Sample ID: AF-RHMW03-WGN01LF-2302W3

Lab Sample ID: 580-123973-1

Matrix: Water

Lab File ID: GB28031.D

Analysis Method: 8015C GLY

Date Collected: 02/23/2023 12:15

Extraction Method: \_\_\_\_\_

Date Extracted: \_\_\_\_\_

Sample wt/vol: 1 (mL)

Date Analyzed: 03/01/2023 00:50

Con. Extract Vol.: 1 (mL)

Dilution Factor: 1

Injection Volume: 1 (uL)

GC Column: J&W DB WAX ID: 0.45 (mm)

% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_

GPC Cleanup: (Y/N) N

Cleanup Factor: \_\_\_\_\_

Analysis Batch No.: 765364

Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	3.0	1.1

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28031.D  
 Lims ID: 580-123973-C-1  
 Client ID: AF-RHMW03-WGN01LF-2302W3  
 Sample Type: Client  
 Inject. Date: 01-Mar-2023 00:50:09      ALS Bottle#: 0      Worklist Smp#: 31  
 Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
 Sample Info: 680-0084108-031  
 Operator ID:      Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:12      Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm)      Det: GC FID2B  
 Process Host: CTX1666

First Level Reviewer: SK9U      Date: 01-Mar-2023 15:18:14

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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\* 4 n-Heptyl Alcohol  
 4.202    4.219    -0.017    5515670    50.0

**Reagents:**

SG,GLY,ISTD,00106      Amount Added: 10.00      Units: uL      Run Reagent

Report Date: 01-Mar-2023 15:19:22

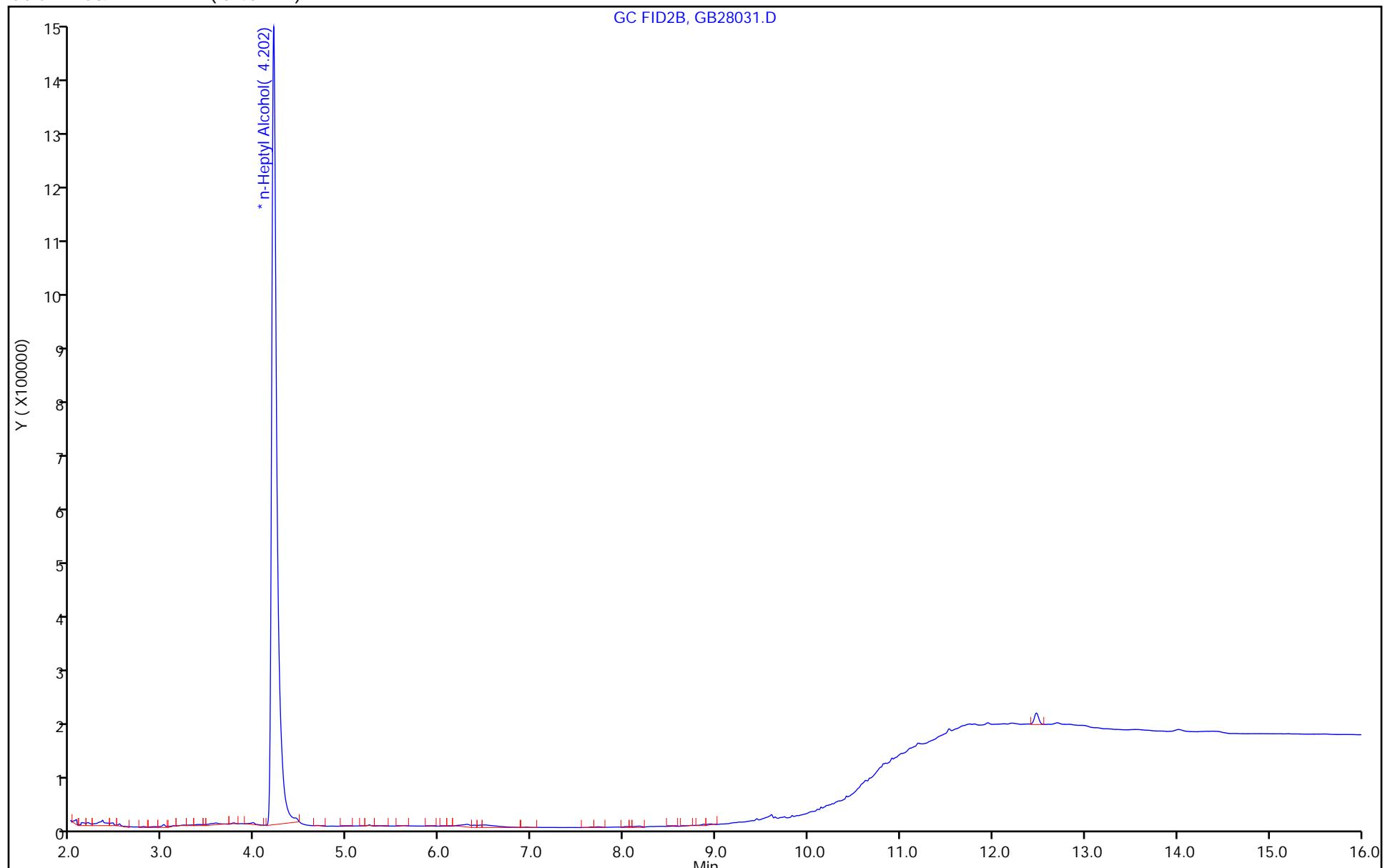
Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28031.D  
Injection Date: 01-Mar-2023 00:50:09 Instrument ID: CVGG2  
Lims ID: 580-123973-C-1 Lab Sample ID: 680-123973-1  
Client ID: AF-RHMW03-WGN01LF-2302W3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Operator ID:  
Worklist Smp#: 31

ALS Bottle#: 0



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Client Sample ID: AF-RHMW225401-WGN01B-2302  
W3

Lab Sample ID: 580-123973-2

Matrix: Water

Lab File ID: GB28034.D

Analysis Method: 8015C GLY

Date Collected: 02/22/2023 12:30

Extraction Method: \_\_\_\_\_

Date Extracted: \_\_\_\_\_

Sample wt/vol: 1 (mL)

Date Analyzed: 03/01/2023 02:00

Con. Extract Vol.: 1 (mL)

Dilution Factor: 1

Injection Volume: 1 (uL)

GC Column: J&W DB WAX ID: 0.45 (mm)

% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_

GPC Cleanup: (Y/N) N

Cleanup Factor: \_\_\_\_\_

Analysis Batch No.: 765364

Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28034.D  
 Lims ID: 580-123973-C-2  
 Client ID: AF-RHMW225401-WGN01B-2302W3  
 Sample Type: Client  
 Inject. Date: 01-Mar-2023 02:00:36 ALS Bottle#: 0 Worklist Smp#: 34  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084108-034  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:12 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1666

First Level Reviewer: SK9U Date: 01-Mar-2023 15:18:27

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	--------------------	-------

\* 4 n-Heptyl Alcohol

4.211 4.219 -0.008 5678402 50.0

8 2-(2-Butoxyethoxy)ethanol 7

8.413 8.419 -0.006 12646 -1.09 7

LOD = 0.5000

### QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

### Reagents:

SG\_GLY\_ITSD\_00106 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 01-Mar-2023 15:19:21

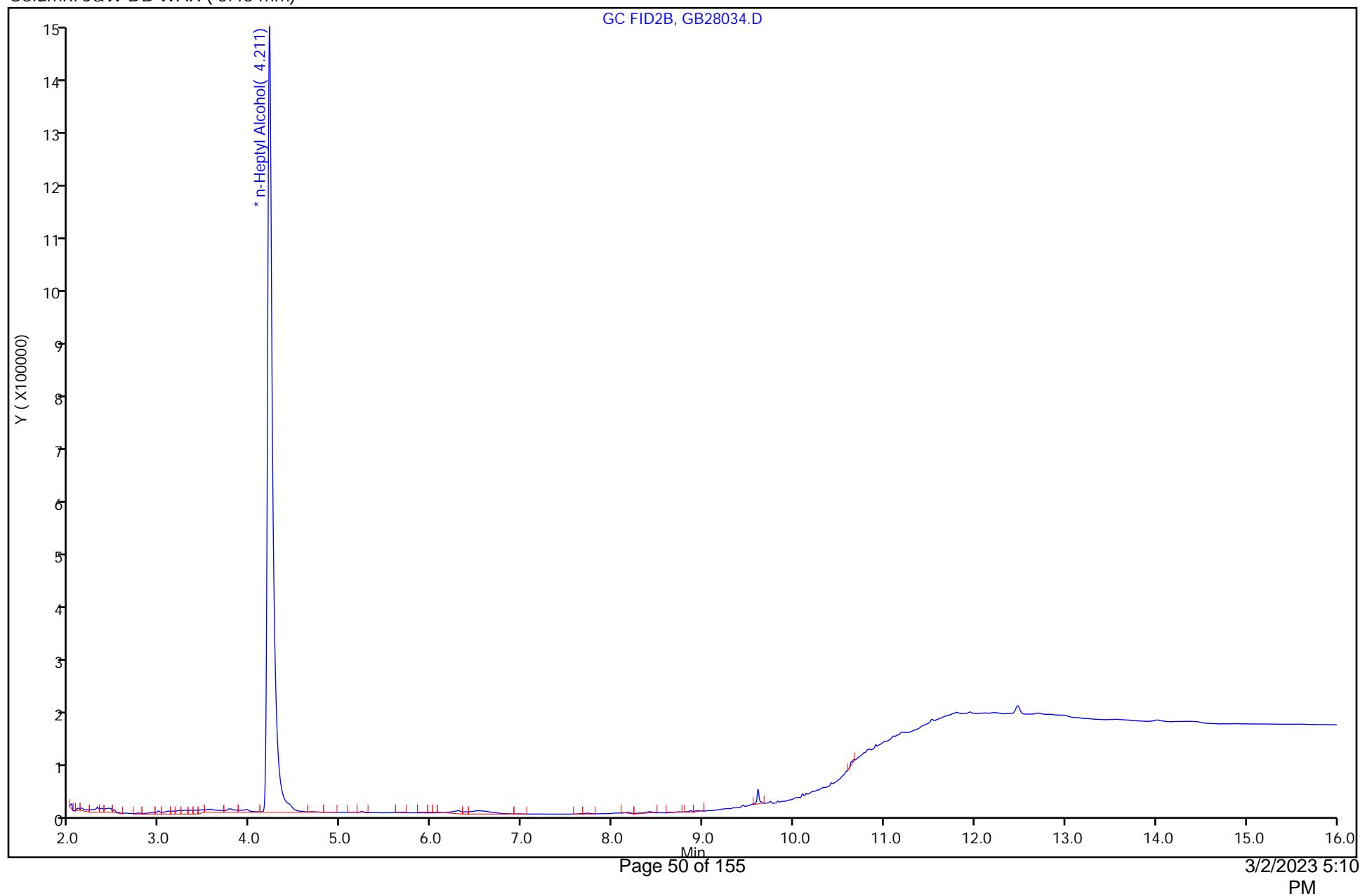
Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28034.D  
Injection Date: 01-Mar-2023 02:00:36 Instrument ID: CVGG2  
Lims ID: 580-123973-C-2 Lab Sample ID: 680-123973-2  
Client ID: AF-RHMW225401-WGN01B-2302W3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Operator ID:  
Worklist Smp#: 34

ALS Bottle#: 0



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Client Sample ID: AF-RHMW02-WGN01LF-2302W3 Lab Sample ID: 580-123973-3

Matrix: Water Lab File ID: GB28035.D

Analysis Method: 8015C GLY Date Collected: 02/23/2023 10:50

Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Sample wt/vol: 1 (mL) Date Analyzed: 03/01/2023 02:23

Con. Extract Vol.: 1 (mL) Dilution Factor: 1

Injection Volume: 1 (uL) GC Column: J&W DB WAX ID: 0.45 (mm)

% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N

Cleanup Factor: \_\_\_\_\_

Analysis Batch No.: 765364 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28035.D  
 Lims ID: 580-123973-C-3  
 Client ID: AF-RHMW02-WGN01LF-2302W3  
 Sample Type: Client  
 Inject. Date: 01-Mar-2023 02:23:59 ALS Bottle#: 0 Worklist Smp#: 35  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084108-035  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:12 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1666

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	--------------------	-------

\* 4 n-Heptyl Alcohol

4.201	4.219	-0.018	6015723	50.0	
8	2-(2-Butoxyethoxy)ethanol				7
8.406	8.419	-0.013	3311	-1.25	7

LOD = 0.5000

### QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

### Reagents:

SG_GLY_ITSD_00106	Amount Added: 10.00	Units: uL	Run Reagent
-------------------	---------------------	-----------	-------------

Report Date: 01-Mar-2023 15:19:20

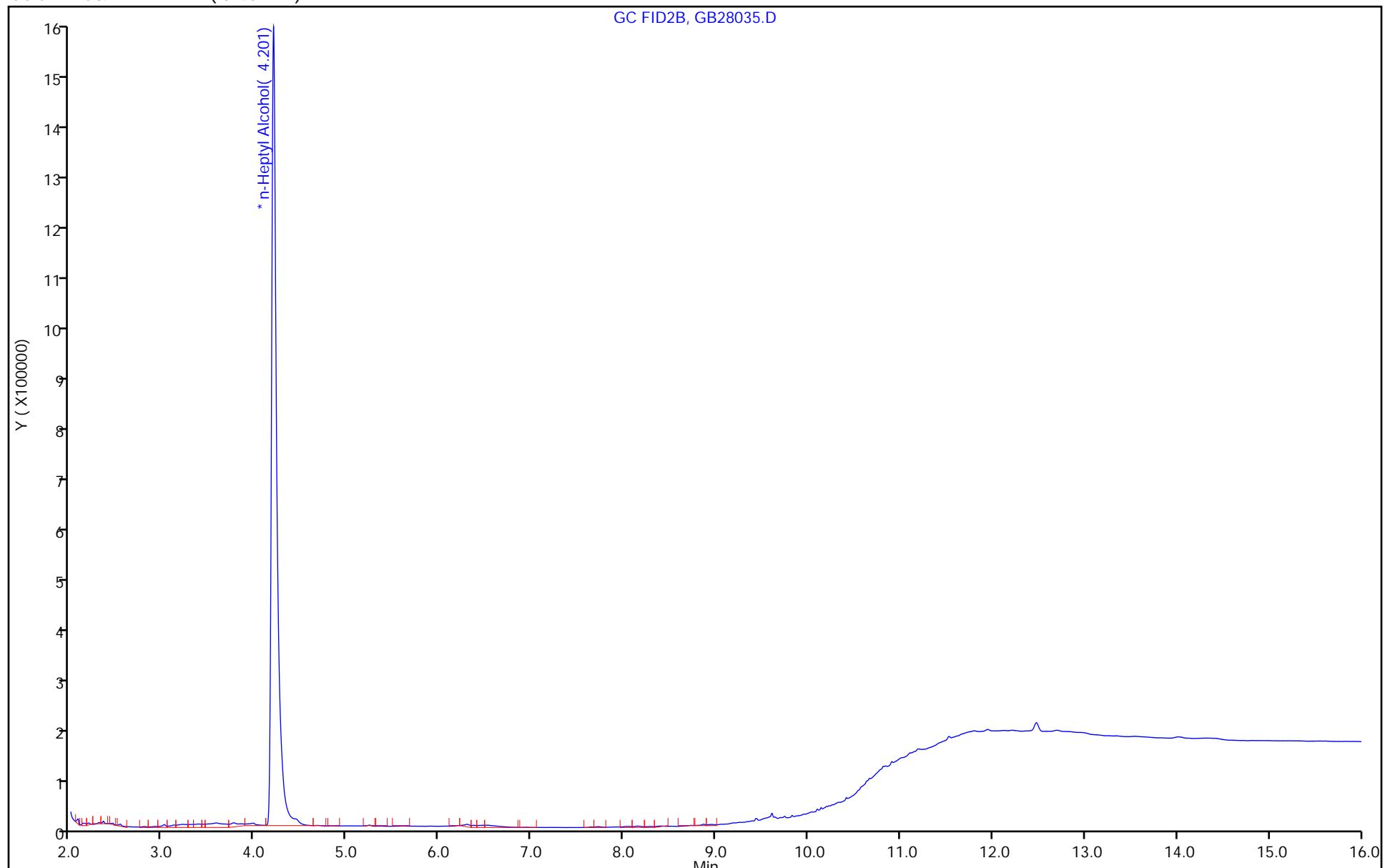
Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28035.D  
Injection Date: 01-Mar-2023 02:23:59 Instrument ID: CVGG2  
Lims ID: 580-123973-C-3 Lab Sample ID: 680-123973-3  
Client ID: AF-RHMW02-WGN01LF-2302W3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Operator ID:  
Worklist Smp#: 35

ALS Bottle#: 0



FORM VI  
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Savannah Job No.: 580-123973-1 Analy Batch No.: 764742  
SDG No.: \_\_\_\_\_  
Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45(mm) Heated Purge: (Y/N) N  
Calibration Start Date: 02/23/2023 18:06 Calibration End Date: 02/23/2023 20:25 Calibration ID: 89990

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-764742/11	GB23011.D
Level 2	IC 680-764742/10	GB23010.D
Level 3	IC 680-764742/9	GB23009.D
Level 4	ICIS 680-764742/8	GB23008.D
Level 5	IC 680-764742/7	GB23007.D
Level 6	IC 680-764742/6	GB23006.D
Level 7	IC 680-764742/5	GB23005.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethanol, 2-propoxy	0.8540 0.5622	0.6674 0.5445	0.6242	0.5857	0.5852	Lin2	0.593 6	0.556 2							0.9990		0.9900
4-Hydroxy-4-methyl-2-pentanone	0.8285 0.5653	0.6424 0.5585	0.5956	0.5767	0.5863	Lin2	0.530 4	0.554 3							0.9990		0.9900
2-Butoxyethanol	0.9883 0.6168	0.7539 0.5950	0.7042	0.6479	0.6428	Lin2	0.756 5	0.610 5							0.9990		0.9900
Dipropylene Glycol Methyl Ether	0.0707 0.0486	0.0529 0.0483	0.0469	0.0468	0.0500	Lin2	0.045 6	0.046 2							0.9960		0.9900
Propylene glycol	0.3577 0.1978	0.2447 0.2002	0.1771	0.1986	0.2018	Qua	0.165 6	0.191 5	0.00000674						0.9990		0.9900
Ethylene glycol	+++++ 0.5158	0.5835 0.5123	0.4588	0.5170	0.5407	Ave		0.521 .3						7.8	20.0		
2-(2-Butoxyethoxy)ethanol	0.8722 0.5415	0.6347 0.5384	0.5412	0.5488	0.5569	Lin2	0.676 4	0.518 6							0.9970		0.9900
2,2'-Oxybisethanol	0.5136 0.3319	0.3444 0.3318	0.3068	0.3442	0.3480	Lin1	0.233 7	0.330 .3							0.9980		0.9900
Triethylene Glycol	+++++ 0.3191	0.3384 0.3192	0.3005	0.3207	0.3315	Ave		0.321 .6						4.0	20.0		
Tetraethylene Glycol	+++++ 0.3347	0.3660 0.3343	0.3204	0.3394	0.3503	Ave		0.340 8						4.6	20.0		

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

Analy Batch No.: 764742

SDG No.: \_\_\_\_\_

Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/23/2023 18:06 Calibration End Date: 02/23/2023 20:25 Calibration ID: 89990

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-764742/11	GB23011.D
Level 2	IC 680-764742/10	GB23010.D
Level 3	IC 680-764742/9	GB23009.D
Level 4	ICIS 680-764742/8	GB23008.D
Level 5	IC 680-764742/7	GB23007.D
Level 6	IC 680-764742/6	GB23006.D
Level 7	IC 680-764742/5	GB23005.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Ethanol, 2-propoxy	nHPA	Lin2	170693 4180502	325093 4611149	665275	1073905	2510727	2.00 80.0	5.00 100	10.0	20.0	50.0
4-Hydroxy-4-methyl-2-pentanone	nHPA	Lin2	165584 4203890	312940 4729980	634792	1057441	2515115	2.00 80.0	5.00 100	10.0	20.0	50.0
2-Butoxyethanol	nHPA	Lin2	197529 4587088	367255 5039356	750536	1188046	2757849	2.00 80.0	5.00 100	10.0	20.0	50.0
Dipropylene Glycol Methyl Ether	nHPA	Lin2	14138 361491	25757 409101	49937	85755	214369	2.00 80.0	5.00 100	10.0	20.0	50.0
Propylene glycol	nHPA	Qua	71503 1470744	119218 1695172	188734	364141	865576	2.00 80.0	5.00 100	10.0	20.0	50.0
Ethylene glycol	nHPA	Ave	+++++ 3835661	284223 4338595	489008	947943	2319537	+++++ 80.0	5.00 100	10.0	20.0	50.0
2-(2-Butoxyethoxy)ethanol	nHPA	Lin2	174322 4026679	309195 4560144	576794	1006289	2389344	2.00 80.0	5.00 100	10.0	20.0	50.0
2,2'-Oxybisethanol	nHPA	Lin1	102648 2467804	167783 2809921	327036	631196	1492784	2.00 80.0	5.00 100	10.0	20.0	50.0
Triethylene Glycol	nHPA	Ave	+++++ 2373220	164825 2703664	320265	588069	1422327	+++++ 80.0	5.00 100	10.0	20.0	50.0
Tetraethylene Glycol	nHPA	Ave	+++++ 4977315	356548 5661877	683040	1244615	3005923	+++++ 160	10.0 200	20.0	40.0	100

Curve Type Legend

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VI  
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: Eurofins Savannah Job No.: 580-123973-1 Analy Batch No.: 764742

SDG No.: \_\_\_\_\_

Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/23/2023 18:06 Calibration End Date: 02/23/2023 20:25 Calibration ID: 89990

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-764742/11	GB23011.D
Level 2	IC 680-764742/10	GB23010.D
Level 3	IC 680-764742/9	GB23009.D
Level 4	ICIS 680-764742/8	GB23008.D
Level 5	IC 680-764742/7	GB23007.D
Level 6	IC 680-764742/6	GB23006.D
Level 7	IC 680-764742/5	GB23005.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 7 #	LVL 3 # LVL 7 #	LVL 4 # LVL 7 #	LVL 5 # LVL 7 #	LVL 6 # LVL 7 #	LVL 1 20 20	LVL 2 20 20	LVL 3 20 20	LVL 4 20 20	LVL 5 20 20	LVL 6 20 20
Ethanol, 2-propoxy	0.2 -3.2	-1.4	1.6	0.0	3.1	-0.3	20 20	20	20	20	20	20
4-Hydroxy-4-methyl-2-pentanone	1.6 -0.2	-3.2	-2.1	-0.7	3.9	0.8	20 20	20	20	20	20	20
2-Butoxyethanol	-0.1 -3.8	-1.3	2.9	-0.1	2.8	-0.5	20 20	20	20	20	20	20
Dipropylene Glycol Methyl Ether	3.8 3.6	-5.3	-8.5	-3.7	6.2	4.0	20 20	20	20	20	20	20
Ethylene glycol	+++++ -1.7	11.9	-12.0	-0.8	3.7	-1.1	20	20	20	20	20	20
2-(2-Butoxyethoxy)ethanol	3.0 2.5	-3.7	-8.7	-0.7	4.8	2.8	20 20	20	20	20	20	20
2,2'-Oxybisethanol	20.1 * -0.3	-9.9	-14.2	0.7	3.9	-0.4	20 20	20	20	20	20	20
Triethylene Glycol	+++++ -0.7	5.2	-6.6	-0.3	3.1	-0.8	20	20	20	20	20	20
Tetraethylene Glycol	+++++ -1.9	7.4	-6.0	-0.4	2.8	-1.8	20	20	20	20	20	20

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23005.D  
 Lims ID: ic g7  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 23-Feb-2023 18:06:04 ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084021-005  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 24-Feb-2023 13:23:49 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1637

First Level Reviewer: SK9U Date: 24-Feb-2023 11:00:15

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy 2.911	2.920	-0.009	4611149	100.0	96.8	
2 4-Hydroxy-4-methyl-2-pentanone 3.459	3.477	-0.018	4729980	100.0	99.8	
3 2-Butoxyethanol 3.770	3.770	0.000	5039356	100.0	96.2	
* 4 n-Heptyl Alcohol 4.237	4.222	0.015	4234617	50.0	50.0	
5 Dipropylene Glycol Methyl Ether 5.144	5.152	-0.008	409101	100.0	103.6	
6 Propylene glycol 6.285	6.271	0.014	1695172	100.0	100.1	Ma
7 Ethylene glycol 6.534	6.555	-0.021	4338595	100.0	98.3	
8 2-(2-Butoxyethoxy)ethanol 8.427	8.425	0.002	4560144	100.0	102.5	
9 2,2'-Oxybisethanol 9.604	9.607	-0.003	2809921	100.0	99.7	
10 Triethylene Glycol 10.631	10.633	-0.002	2703664	100.0	99.3	
11 Tetraethylene Glycol 11.769	11.777	-0.008	5661877	200.0	196.1	M

### QC Flag Legend

Processing Flags

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

SG\_Gly\_CAL\_00048

Amount Added: 50.00

Units: uL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

Run Reagent

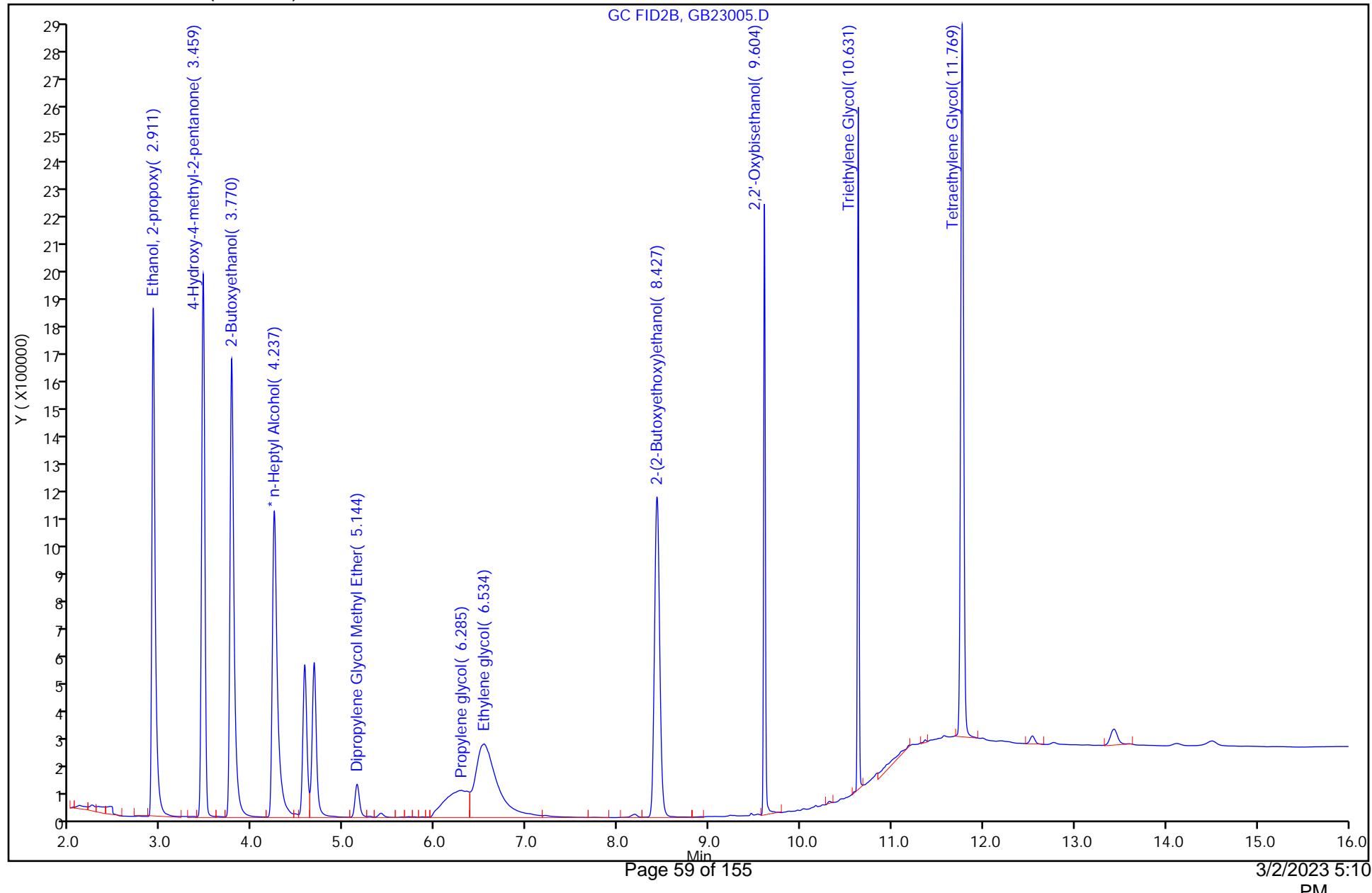
Report Date: 24-Feb-2023 13:23:50

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230223-84021.b\\GB23005.D  
Injection Date: 23-Feb-2023 18:06:04 Instrument ID: CVGG2  
Lims ID: ic g7 Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 5



## Eurofins Savannah

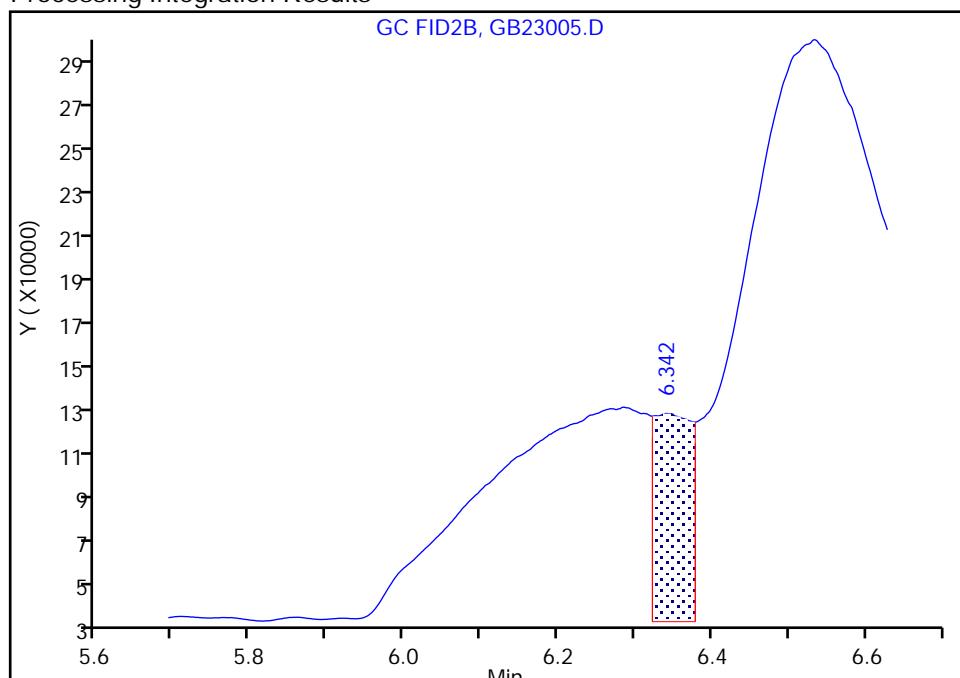
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23005.D  
 Injection Date: 23-Feb-2023 18:06:04 Instrument ID: CVGG2  
 Lims ID: ic g7  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

### 6 Propylene glycol, CAS: 57-55-6

Signal: 1

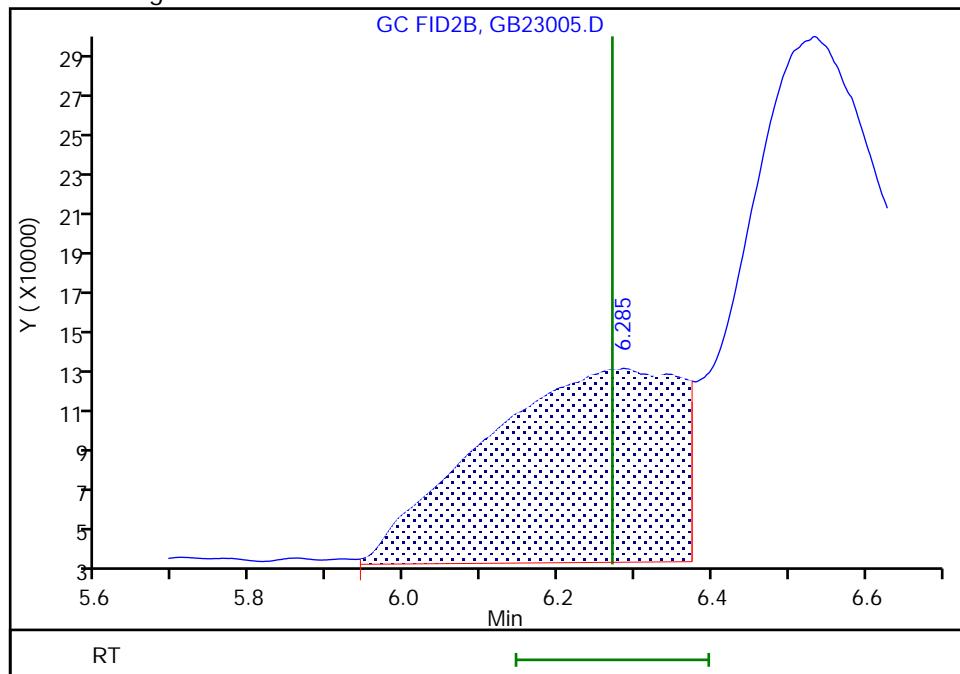
RT: 6.34  
 Area: 306574  
 Amount: 22.876952  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.29  
 Area: 1695172  
 Amount: 100.1115  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:11:18

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

## Eurofins Savannah

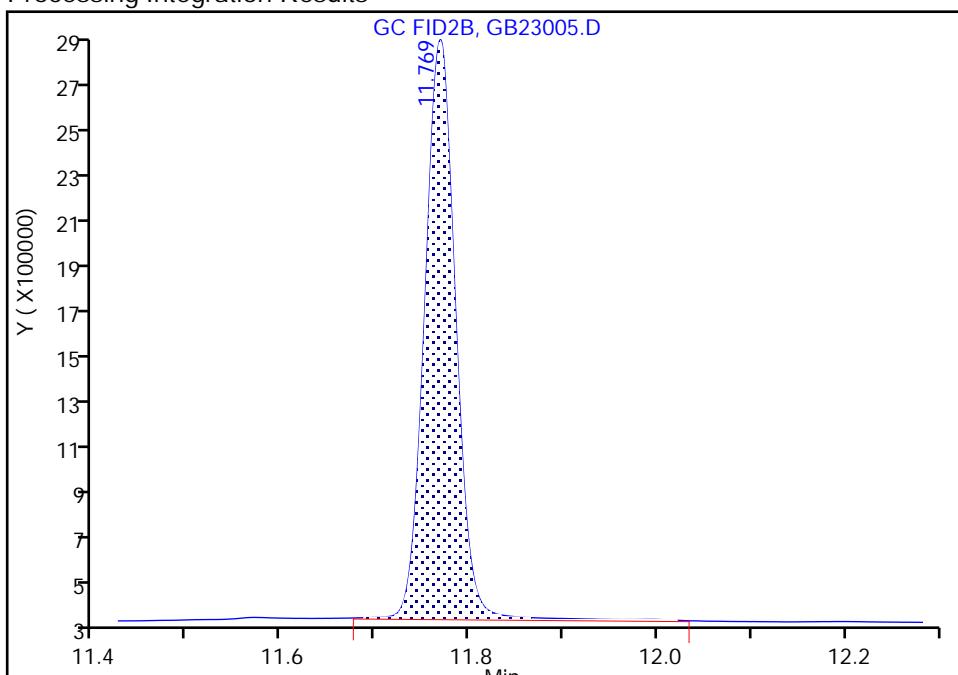
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23005.D  
 Injection Date: 23-Feb-2023 18:06:04 Instrument ID: CVGG2  
 Lims ID: ic g7  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

### 11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

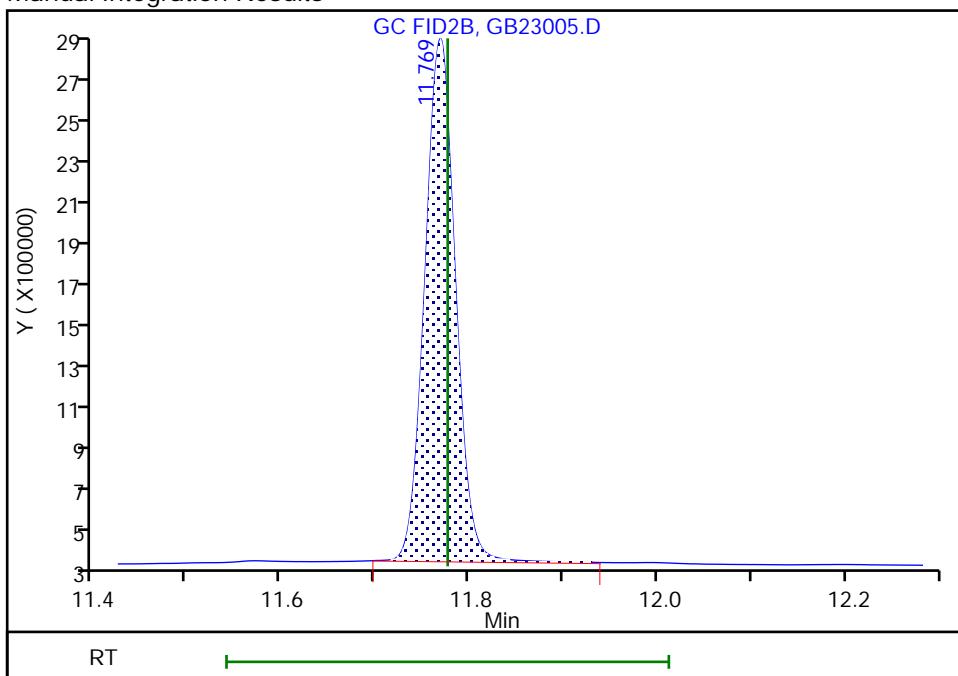
RT: 11.77  
 Area: 5725484  
 Amount: 200.6838  
 Amount Units: ug/ml

## Processing Integration Results



RT: 11.77  
 Area: 5661877  
 Amount: 196.1384  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:16:16

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23006.D  
 Lims ID: ic g6  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 23-Feb-2023 18:29:41 ALS Bottle#: 0 Worklist Smp#: 6  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084021-006  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 24-Feb-2023 13:23:50 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1637

First Level Reviewer: SK9U Date: 24-Feb-2023 11:00:44

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy 2.910	2.920	-0.010	4180502	80.0	79.8	
2 4-Hydroxy-4-methyl-2-pentanone 3.459	3.477	-0.018	4203890	80.0	80.6	
3 2-Butoxyethanol 3.769	3.770	-0.001	4587088	80.0	79.6	
* 4 n-Heptyl Alcohol 4.234	4.222	0.012	4647729	50.0	50.0	
5 Dipropylene Glycol Methyl Ether 5.143	5.152	-0.009	361491	80.0	83.2	
6 Propylene glycol 6.275	6.271	0.004	1470744	80.0	79.5	Ma
7 Ethylene glycol 6.534	6.555	-0.021	3835661	80.0	79.1	M
8 2-(2-Butoxyethoxy)ethanol 8.426	8.425	0.001	4026679	80.0	82.2	
9 2,2'-Oxybisethanol 9.604	9.607	-0.003	2467804	80.0	79.7	
10 Triethylene Glycol 10.630	10.633	-0.003	2373220	80.0	79.4	
11 Tetraethylene Glycol 11.768	11.777	-0.009	4977315	160.0	157.1	M

### QC Flag Legend

Processing Flags

Report Date: 24-Feb-2023 13:23:50

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

SG\_Gly\_CAL\_00048

Amount Added: 40.00

Units: uL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

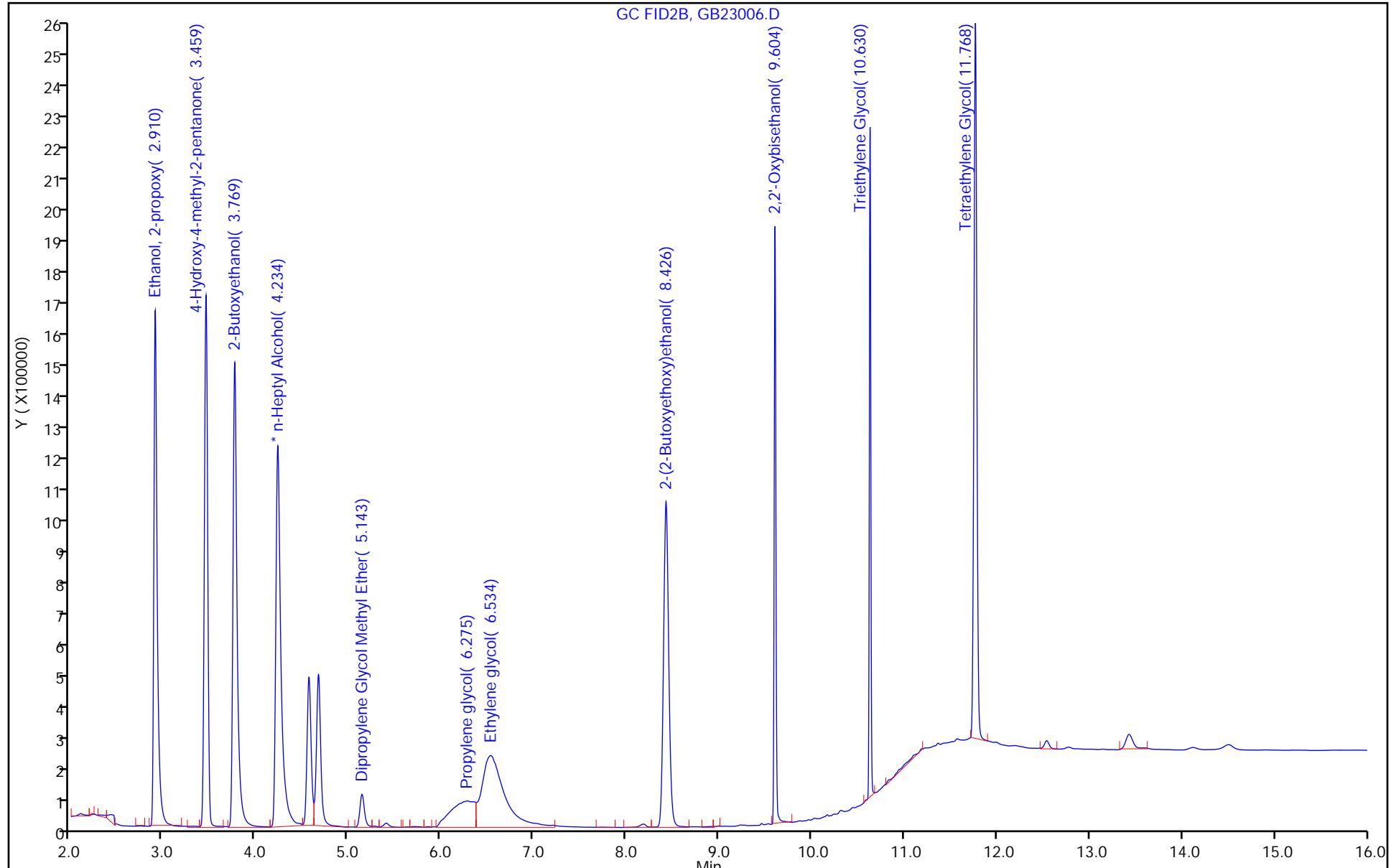
Run Reagent

Report Date: 24-Feb-2023 13:23:50

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230223-84021.b\\GB23006.D  
Injection Date: 23-Feb-2023 18:29:41 Instrument ID: CVGG2  
Lims ID: ic g6 Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)



## Eurofins Savannah

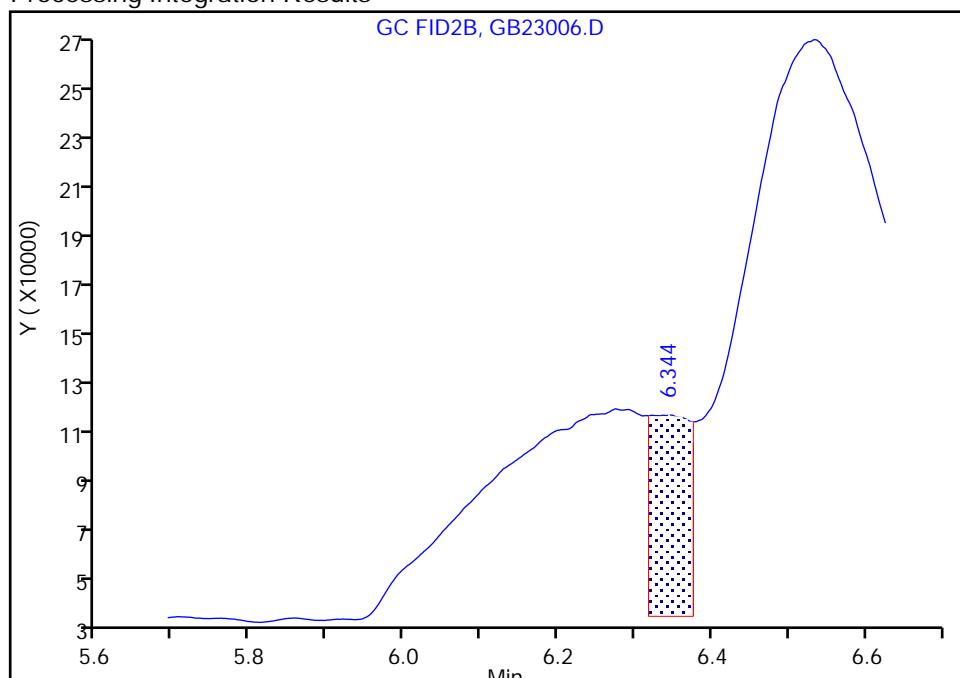
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23006.D  
 Injection Date: 23-Feb-2023 18:29:41 Instrument ID: CVGG2  
 Lims ID: ic g6  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 6  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

### 6 Propylene glycol, CAS: 57-55-6

Signal: 1

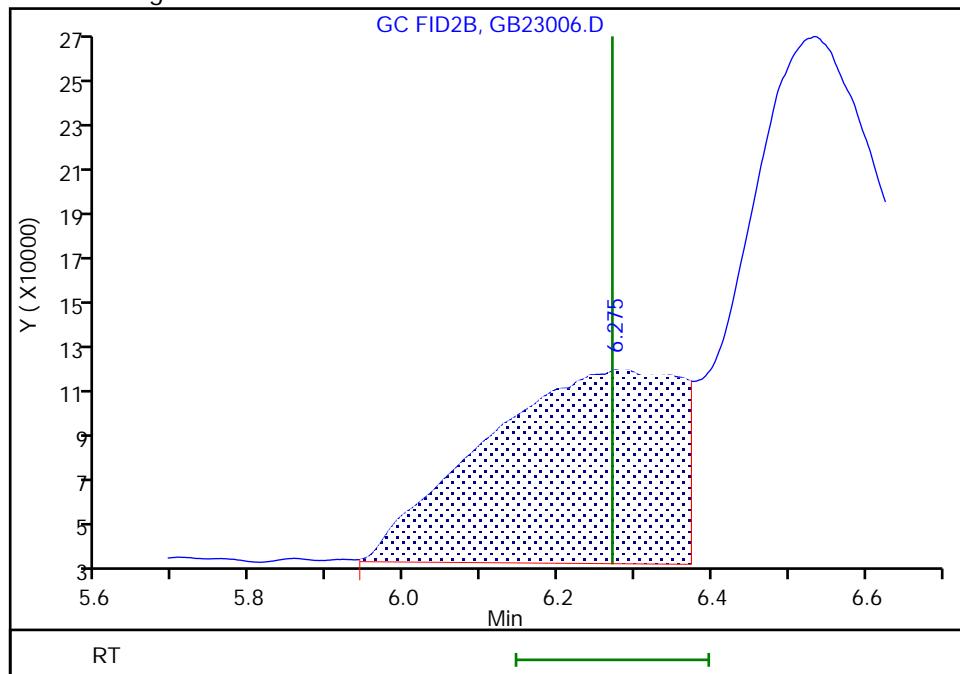
RT: 6.34  
 Area: 271622  
 Amount: 17.810733  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.28  
 Area: 1470744  
 Amount: 79.518720  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:11:33

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

## Eurofins Savannah

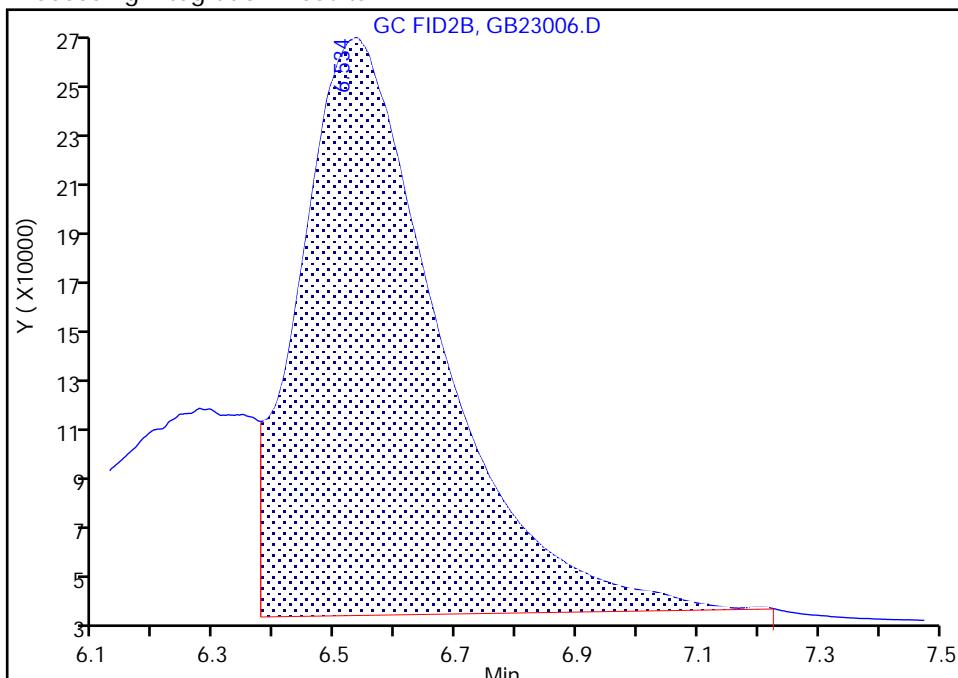
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23006.D  
 Injection Date: 23-Feb-2023 18:29:41 Instrument ID: CVGG2  
 Lims ID: ic g6  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 6  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

### 7 Ethylene glycol, CAS: 107-21-1

Signal: 1

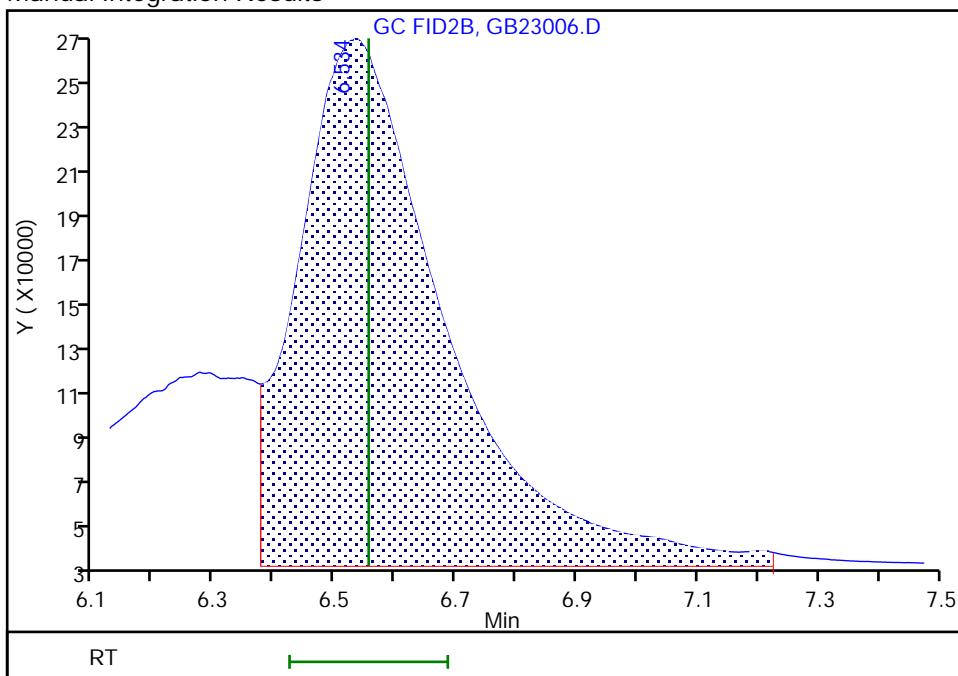
RT: 6.53  
 Area: 3632727  
 Amount: 77.239582  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.53  
 Area: 3835661  
 Amount: 79.149932  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:10:24

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

## Eurofins Savannah

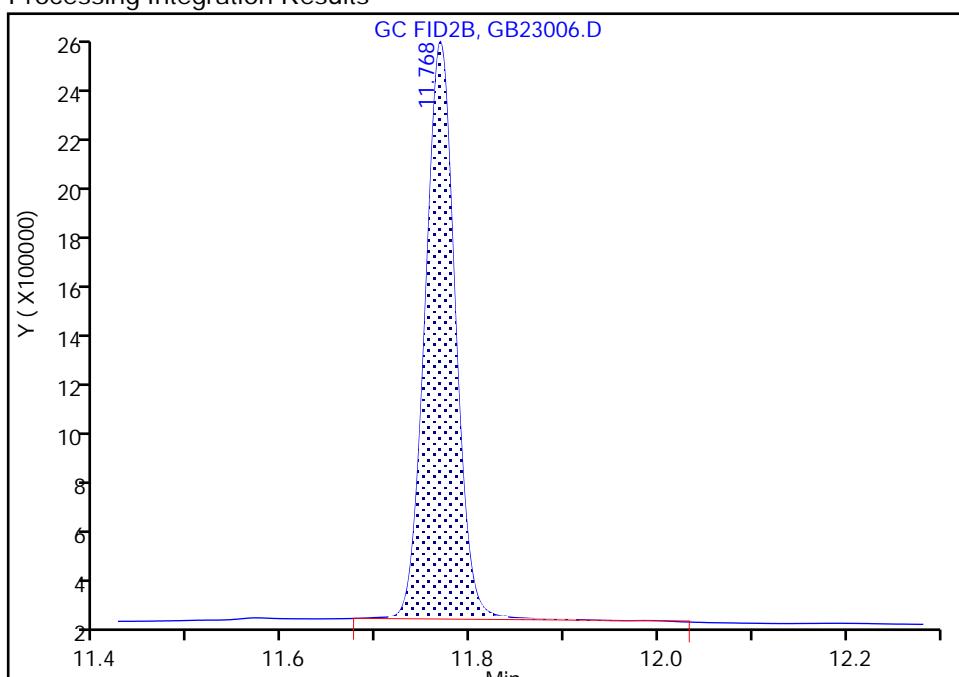
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23006.D  
 Injection Date: 23-Feb-2023 18:29:41 Instrument ID: CVGG2  
 Lims ID: ic g6  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 6  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

## 11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

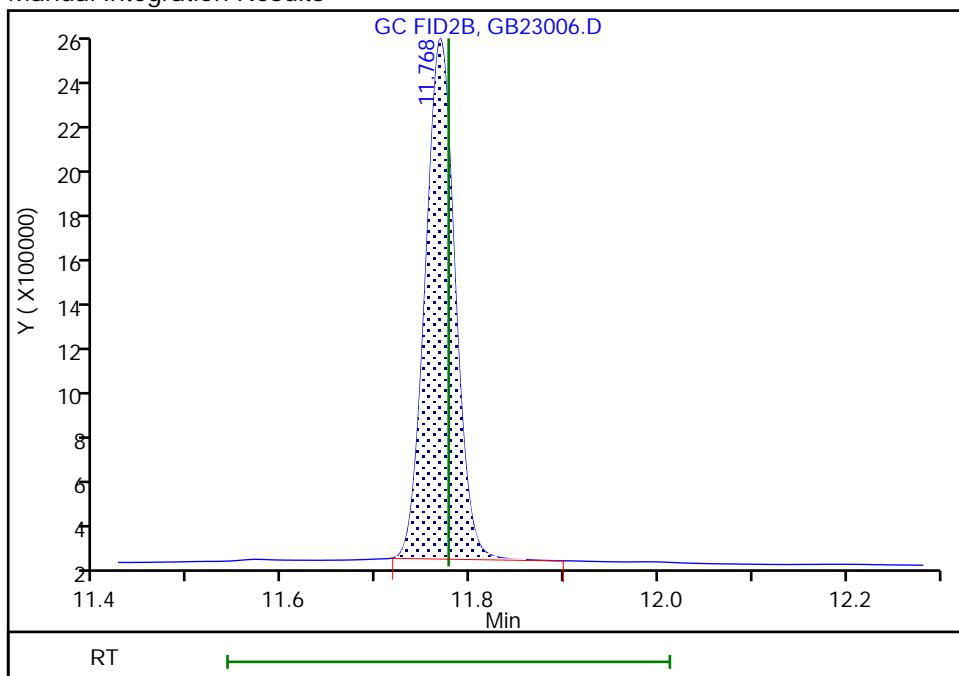
RT: 11.77  
 Area: 5071440  
 Amount: 159.9457  
 Amount Units: ug/ml

## Processing Integration Results



RT: 11.77  
 Area: 4977315  
 Amount: 157.0980  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:16:01

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23007.D  
 Lims ID: ic g5  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 23-Feb-2023 18:53:08 ALS Bottle#: 0 Worklist Smp#: 7  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084021-007  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 24-Feb-2023 13:23:51 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1637

First Level Reviewer: SK9U Date: 24-Feb-2023 11:01:31

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy 2.911	2.920	-0.009	2510727	50.0	51.5	
2 4-Hydroxy-4-methyl-2-pentanone 3.460	3.477	-0.017	2515115	50.0	51.9	
3 2-Butoxyethanol 3.768	3.770	-0.002	2757849	50.0	51.4	
* 4 n-Heptyl Alcohol 4.232	4.222	0.010	4290074	50.0	50.0	
5 Dipropylene Glycol Methyl Ether 5.144	5.152	-0.008	214369	50.0	53.1	
6 Propylene glycol 6.285	6.271	0.014	865576	50.0	50.9	Ma
7 Ethylene glycol 6.538	6.555	-0.017	2319537	50.0	51.9	
8 2-(2-Butoxyethoxy)ethanol 8.426	8.425	0.001	2389344	50.0	52.4	
9 2,2'-Oxybisethanol 9.604	9.607	-0.003	1492784	50.0	52.0	
10 Triethylene Glycol 10.629	10.633	-0.004	1422327	50.0	51.5	
11 Tetraethylene Glycol 11.766	11.777	-0.011	3005923	100.0	102.8	M

### QC Flag Legend

Processing Flags

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

SG\_Gly\_CAL\_00048

Amount Added: 25.00

Units: uL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

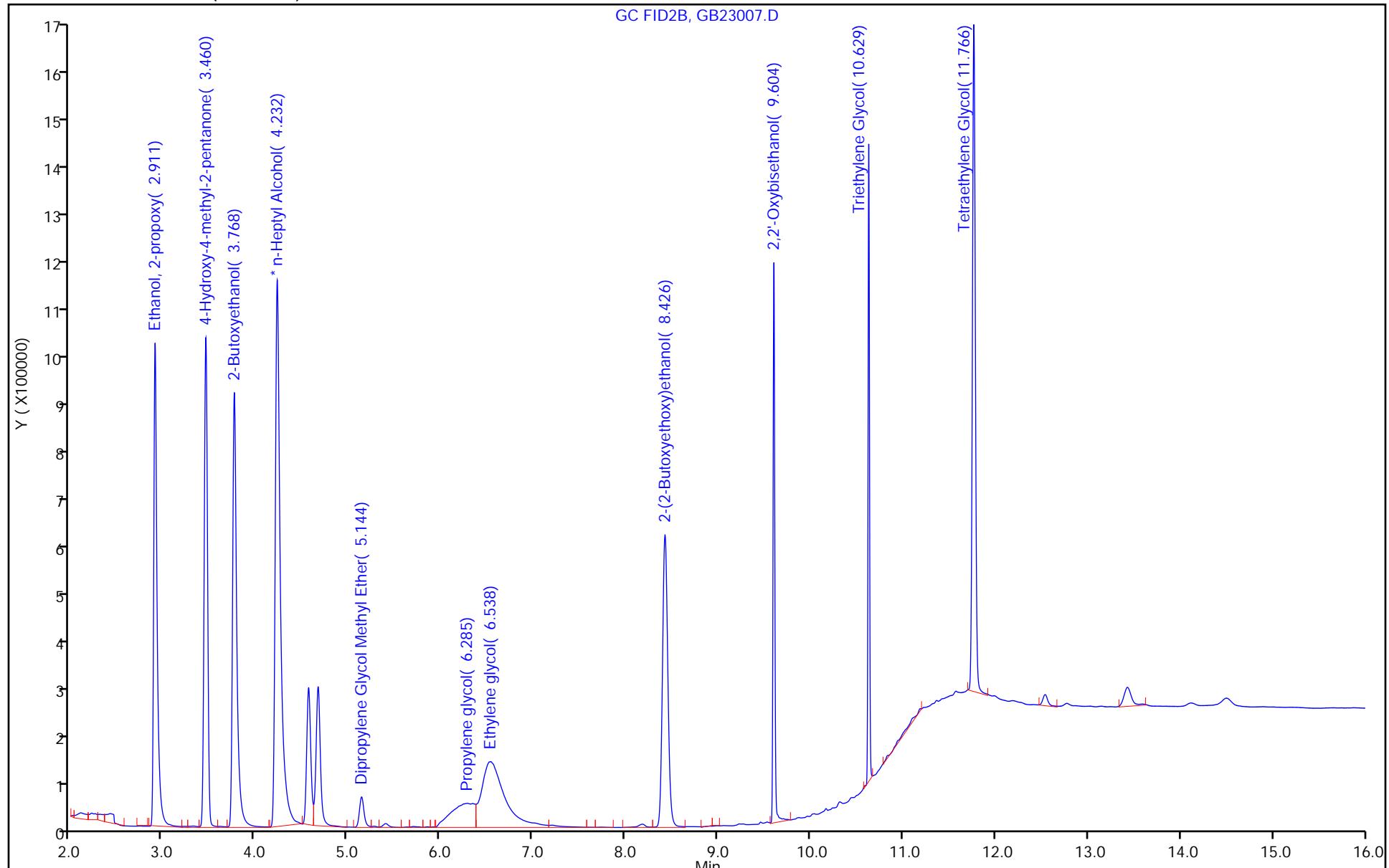
Run Reagent

Report Date: 24-Feb-2023 13:23:51

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230223-84021.b\\GB23007.D  
Injection Date: 23-Feb-2023 18:53:08 Instrument ID: CVGG2  
Lims ID: ic g5 Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Worklist Smp#: 7  
Method: 8015\_GLY\_VGG Dil. Factor: 1.0000  
Column: J&W DB WAX ( 0.45 mm) Limit Group: 8015C\_DAI



## Eurofins Savannah

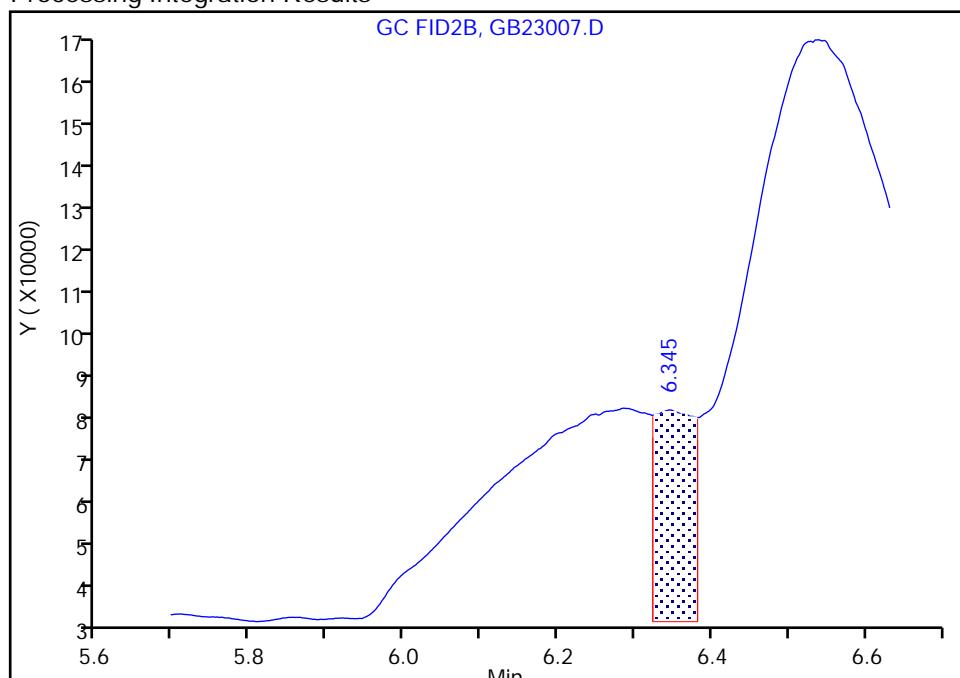
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23007.D  
 Injection Date: 23-Feb-2023 18:53:08 Instrument ID: CVGG2  
 Lims ID: ic g5  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 7  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

### 6 Propylene glycol, CAS: 57-55-6

Signal: 1

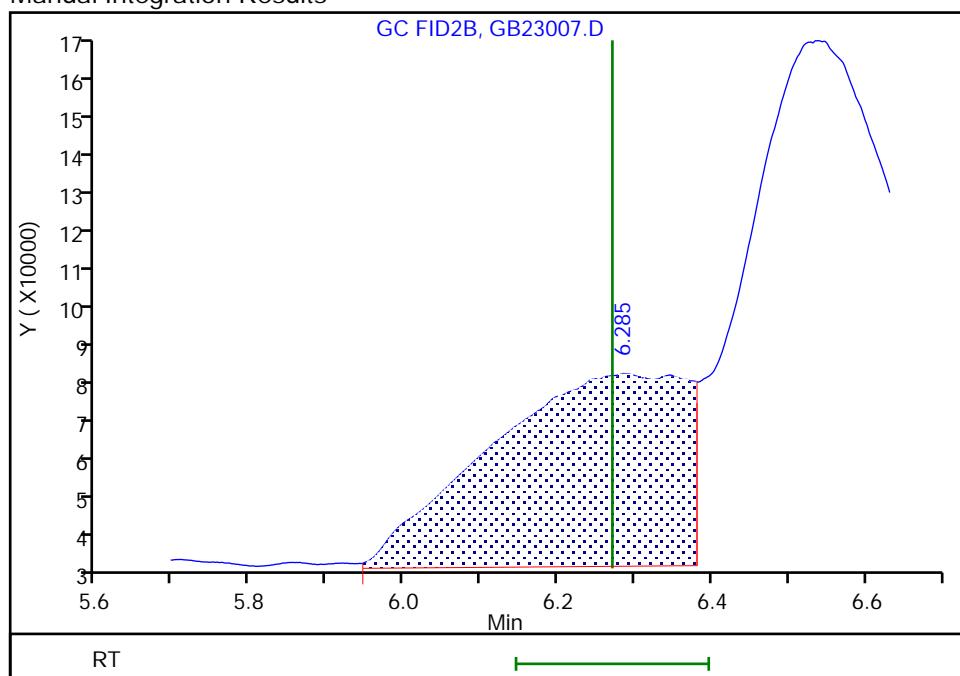
RT: 6.35  
 Area: 167178  
 Amount: 11.555034  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.29  
 Area: 865576  
 Amount: 50.894399  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:11:53

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

## Eurofins Savannah

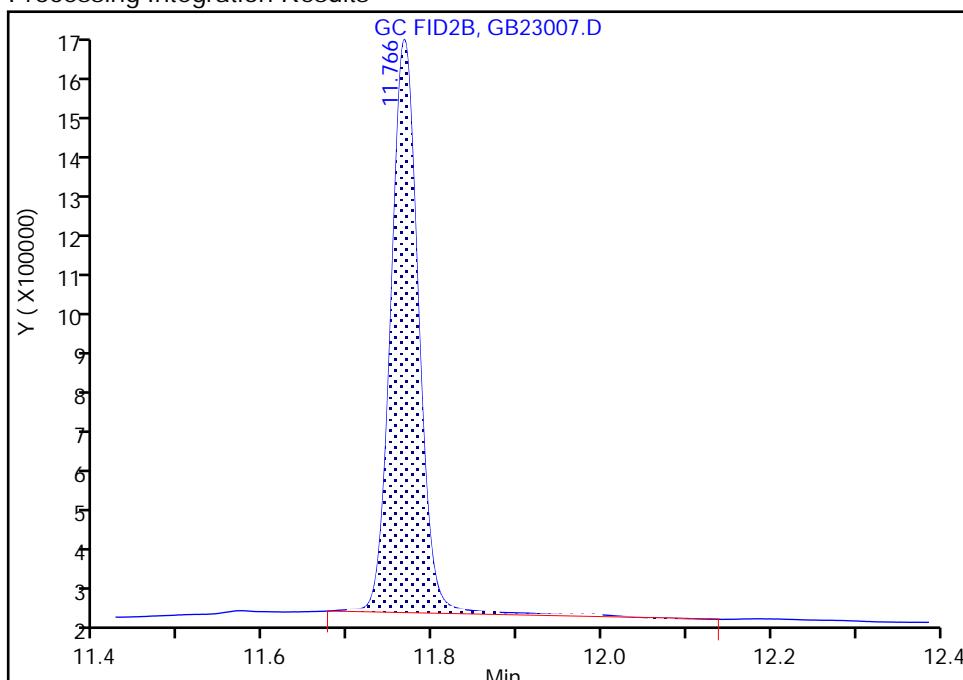
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23007.D  
 Injection Date: 23-Feb-2023 18:53:08 Instrument ID: CVGG2  
 Lims ID: ic g5  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 7  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

## 11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

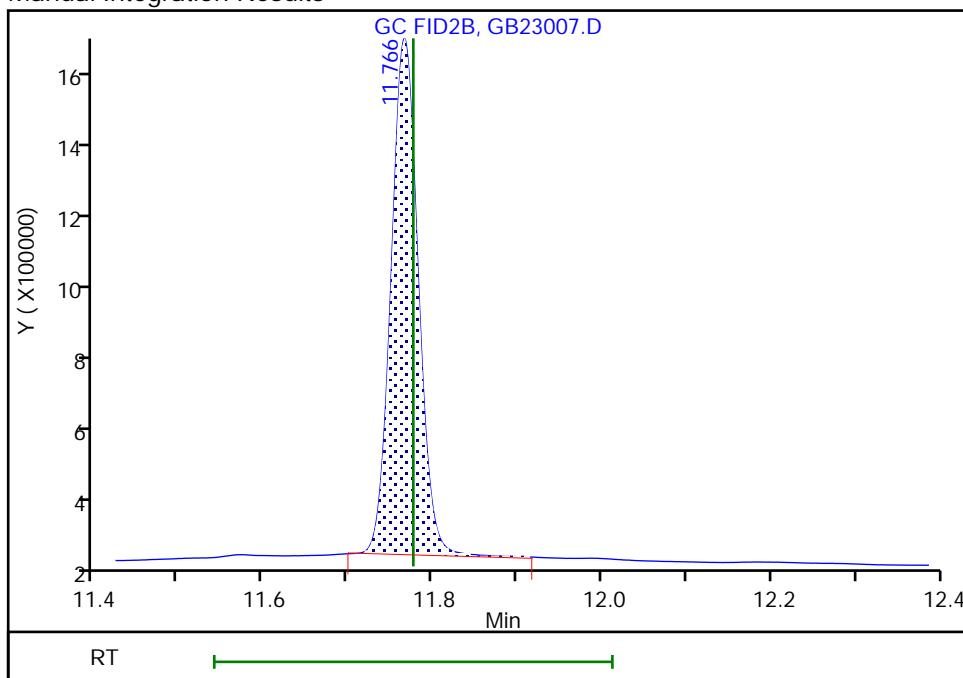
RT: 11.77  
 Area: 3096971  
 Amount: 102.7928  
 Amount Units: ug/ml

## Processing Integration Results



RT: 11.77  
 Area: 3005923  
 Amount: 102.7849  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:15:45

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23008.D  
 Lims ID: icis g4  
 Client ID:  
 Sample Type: ICIS Calib Level: 4  
 Inject. Date: 23-Feb-2023 19:16:31 ALS Bottle#: 0 Worklist Smp#: 8  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084021-008  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 24-Feb-2023 13:23:52 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1637

First Level Reviewer: SK9U Date: 24-Feb-2023 11:01:53

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
-----------	---------------	---------------	----------	---------------	-----------------	-------

1 Ethanol, 2-propoxy						
2.912	2.912	0.000	1073905	20.0	20.0	
2 4-Hydroxy-4-methyl-2-pentanone						
3.461	3.461	0.000	1057441	20.0	19.9	
3 2-Butoxyethanol						
3.767	3.767	0.000	1188046	20.0	20.0	
* 4 n-Heptyl Alcohol						
4.231	4.231	0.000	4583875	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.144	5.144	0.000	85755	20.0	19.3	
6 Propylene glycol						Ma
6.362	6.362	0.000	364141	20.0	19.7	M
7 Ethylene glycol						M
6.547	6.547	0.000	947943	20.0	19.8	M
8 2-(2-Butoxyethoxy)ethanol						
8.426	8.426	0.000	1006289	20.0	19.9	
9 2,2'-Oxybisethanol						
9.602	9.602	0.000	631196	20.0	20.1	
10 Triethylene Glycol						
10.630	10.630	0.000	588069	20.0	19.9	
11 Tetraethylene Glycol						M
11.767	11.767	0.000	1244615	40.0	39.8	M

### QC Flag Legend

Processing Flags

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

SG\_Gly\_CAL\_00048

Amount Added: 10.00

Units: uL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

Run Reagent

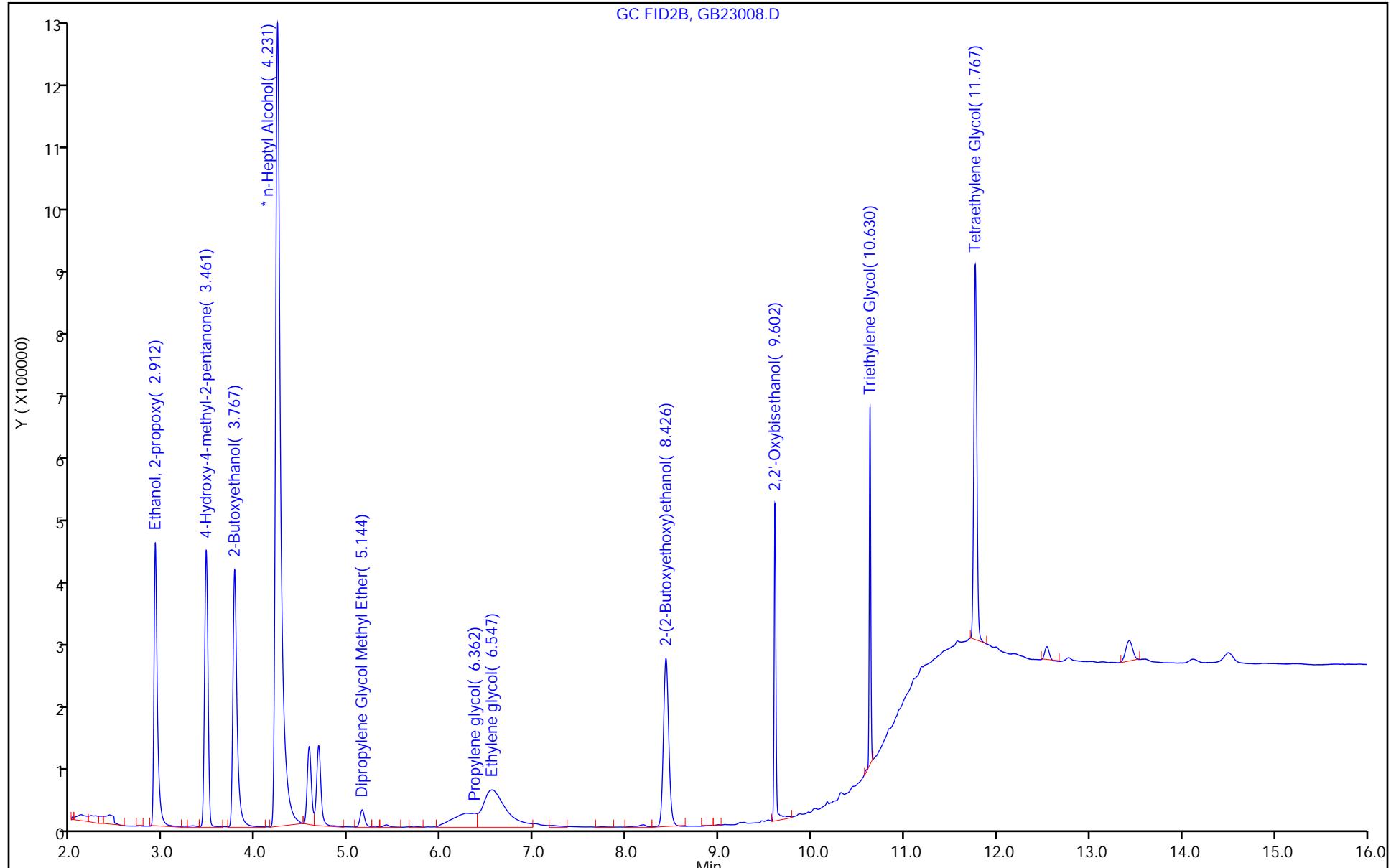
Report Date: 24-Feb-2023 13:23:52

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230223-84021.b\\GB23008.D  
Injection Date: 23-Feb-2023 19:16:31 Instrument ID: CVGG2  
Lims ID: icis g4 Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 8



## Eurofins Savannah

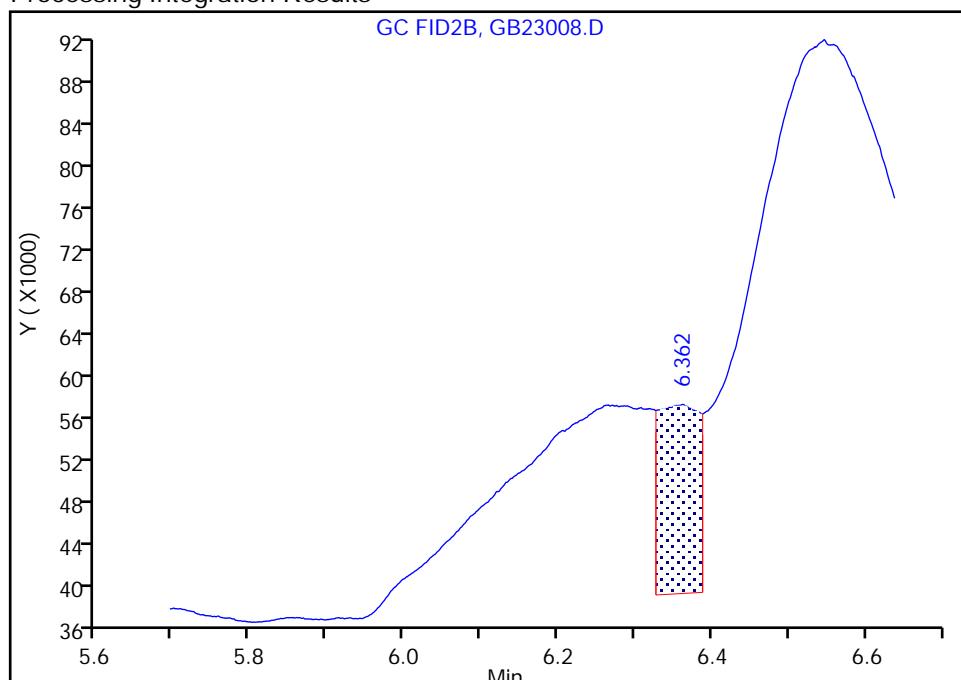
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23008.D  
 Injection Date: 23-Feb-2023 19:16:31 Instrument ID: CVGG2  
 Lims ID: icis g4  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 8  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

**6 Propylene glycol, CAS: 57-55-6**

Signal: 1

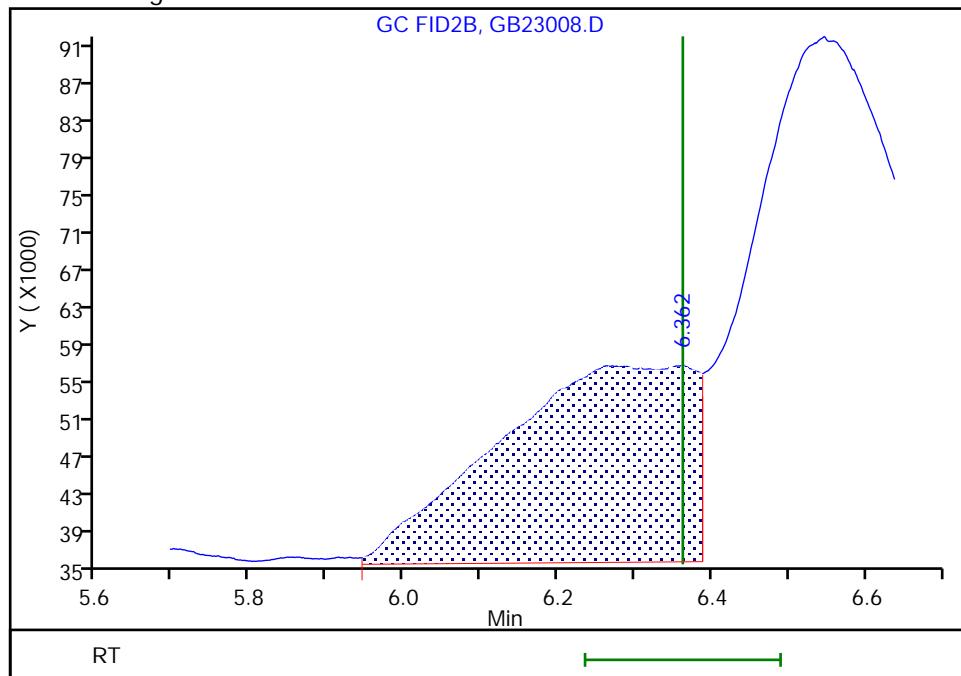
RT: 6.36  
 Area: 63987  
 Amount: 4.005166  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.36  
 Area: 364141  
 Amount: 19.736106  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:12:11

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

## Eurofins Savannah

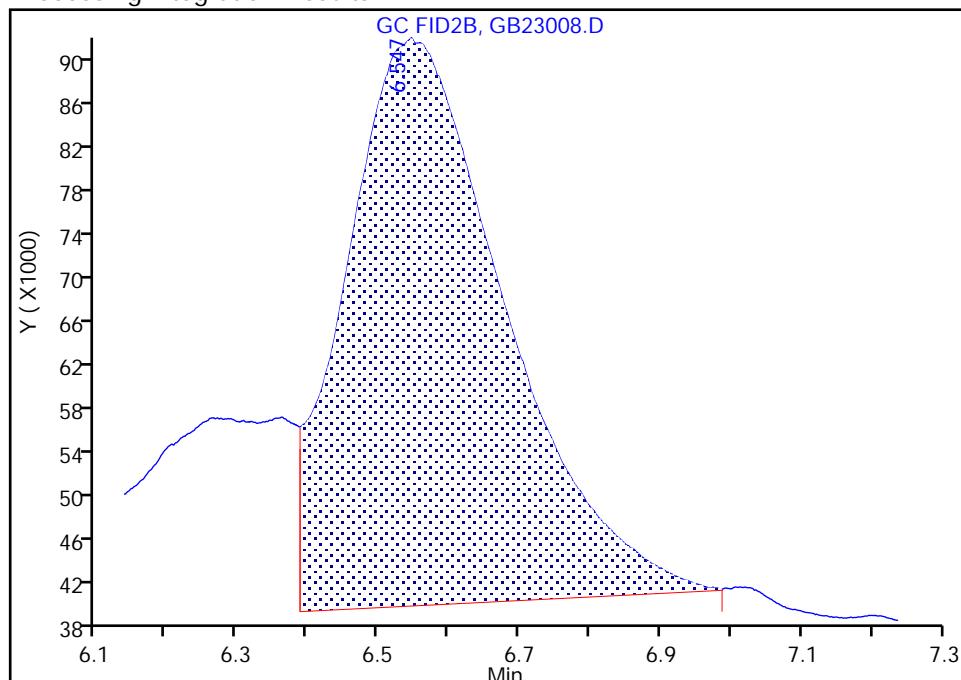
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23008.D  
 Injection Date: 23-Feb-2023 19:16:31 Instrument ID: CVGG2  
 Lims ID: icis g4  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 8  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

## 7 Ethylene glycol, CAS: 107-21-1

Signal: 1

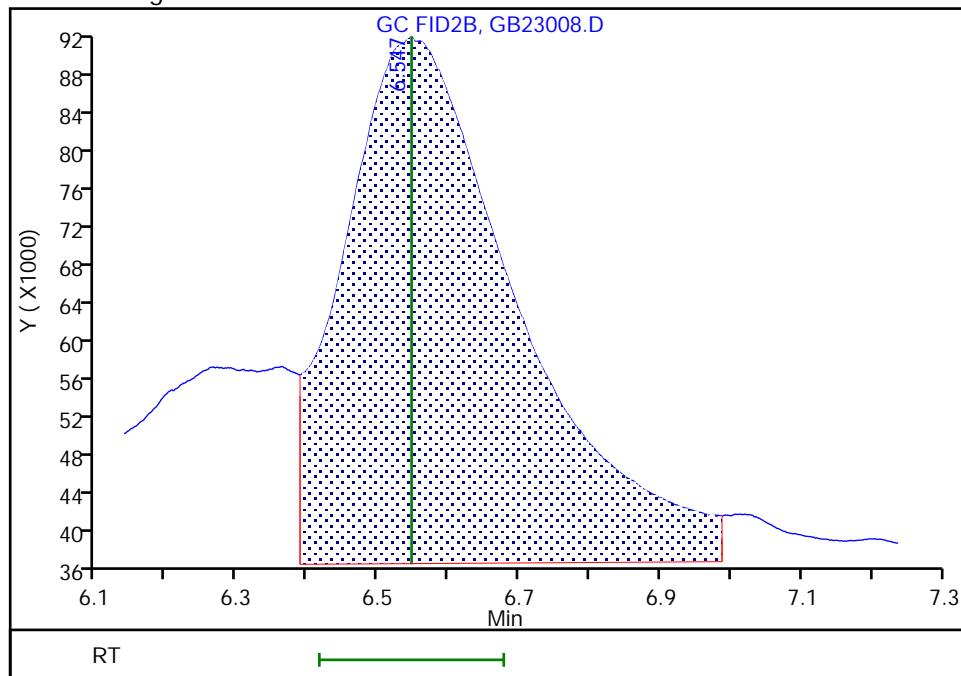
RT: 6.55  
 Area: 812987  
 Amount: 17.511168  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.55  
 Area: 947943  
 Amount: 19.833556  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:09:58

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

## Eurofins Savannah

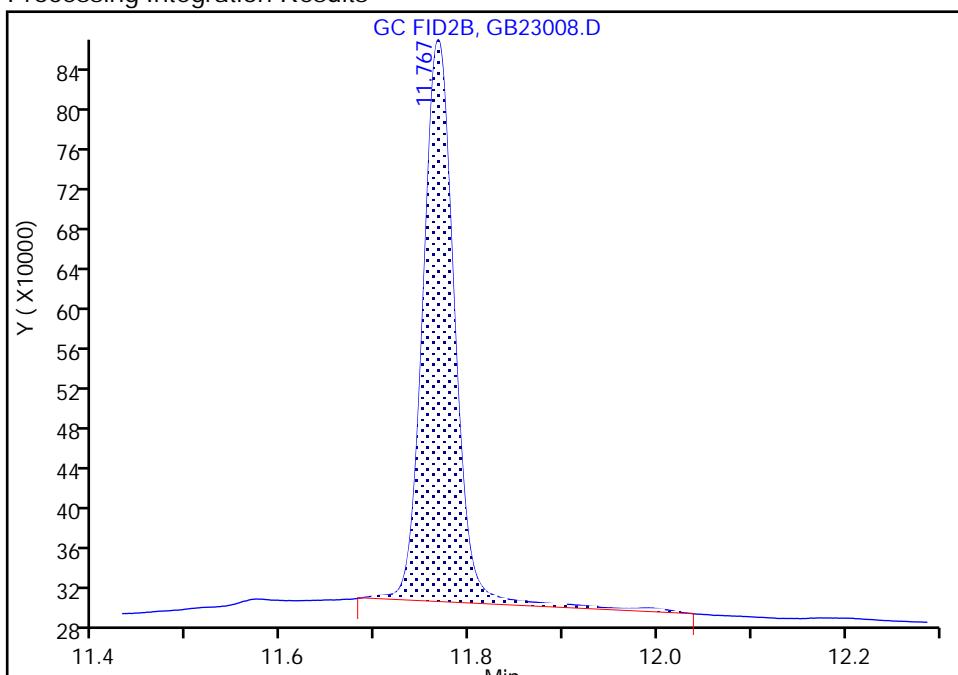
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23008.D  
 Injection Date: 23-Feb-2023 19:16:31 Instrument ID: CVGG2  
 Lims ID: icis g4  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 8  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

### 11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

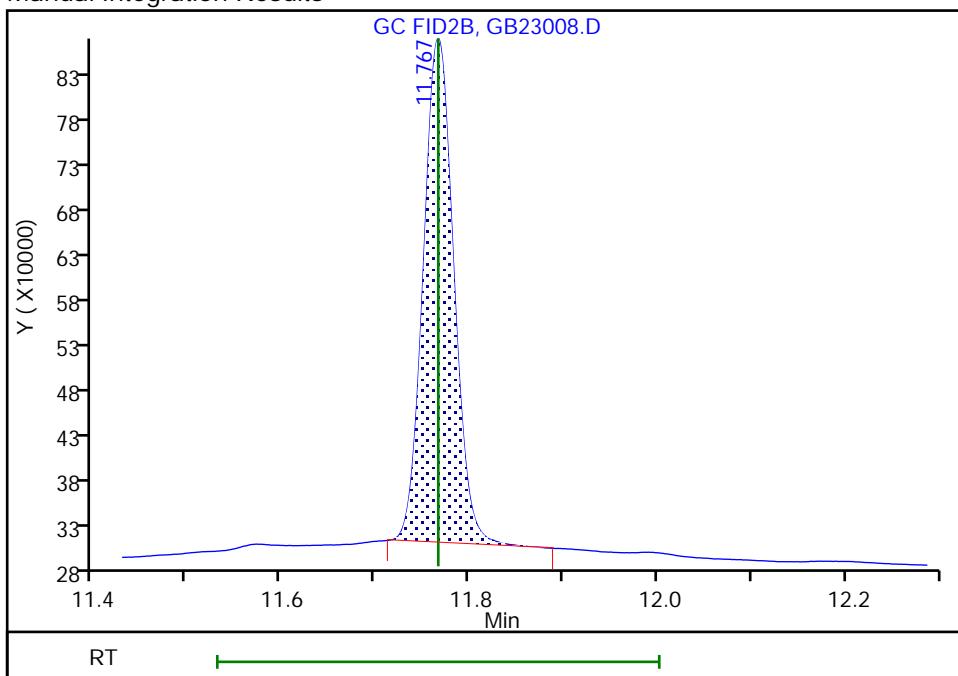
RT: 11.77  
 Area: 1315484  
 Amount: 39.425517  
 Amount Units: ug/ml

## Processing Integration Results



RT: 11.77  
 Area: 1244615  
 Amount: 39.830764  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:15:29

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23009.D  
 Lims ID: ic g3  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 23-Feb-2023 19:39:01 ALS Bottle#: 0 Worklist Smp#: 9  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084021-009  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 24-Feb-2023 13:23:53 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1637

First Level Reviewer: SK9U Date: 24-Feb-2023 11:02:15

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy 2.914	2.912	0.002	665275	10.0	10.2	
2 4-Hydroxy-4-methyl-2-pentanone 3.466	3.461	0.005	634792	10.0	9.79	
3 2-Butoxyethanol 3.769	3.767	0.002	750536	10.0	10.3	
* 4 n-Heptyl Alcohol 4.229	4.231	-0.002	5329257	50.0	50.0	
5 Dipropylene Glycol Methyl Ether 5.147	5.144	0.003	49937	10.0	9.15	
6 Propylene glycol 6.274	6.362	-0.088	188734	10.0	8.36	Ma
7 Ethylene glycol 6.547	6.547	0.000	489008	10.0	8.80	
8 2-(2-Butoxyethoxy)ethanol 8.427	8.426	0.001	576794	10.0	9.13	
9 2,2'-Oxybisethanol 9.604	9.602	0.002	327036	10.0	8.58	
10 Triethylene Glycol 10.630	10.630	0.000	320265	10.0	9.34	
11 Tetraethylene Glycol 11.767	11.767	0.000	683040	20.0	18.8	M

### QC Flag Legend

Processing Flags

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

SG\_Gly\_CAL\_00048

Amount Added: 5.00

Units: uL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

Run Reagent

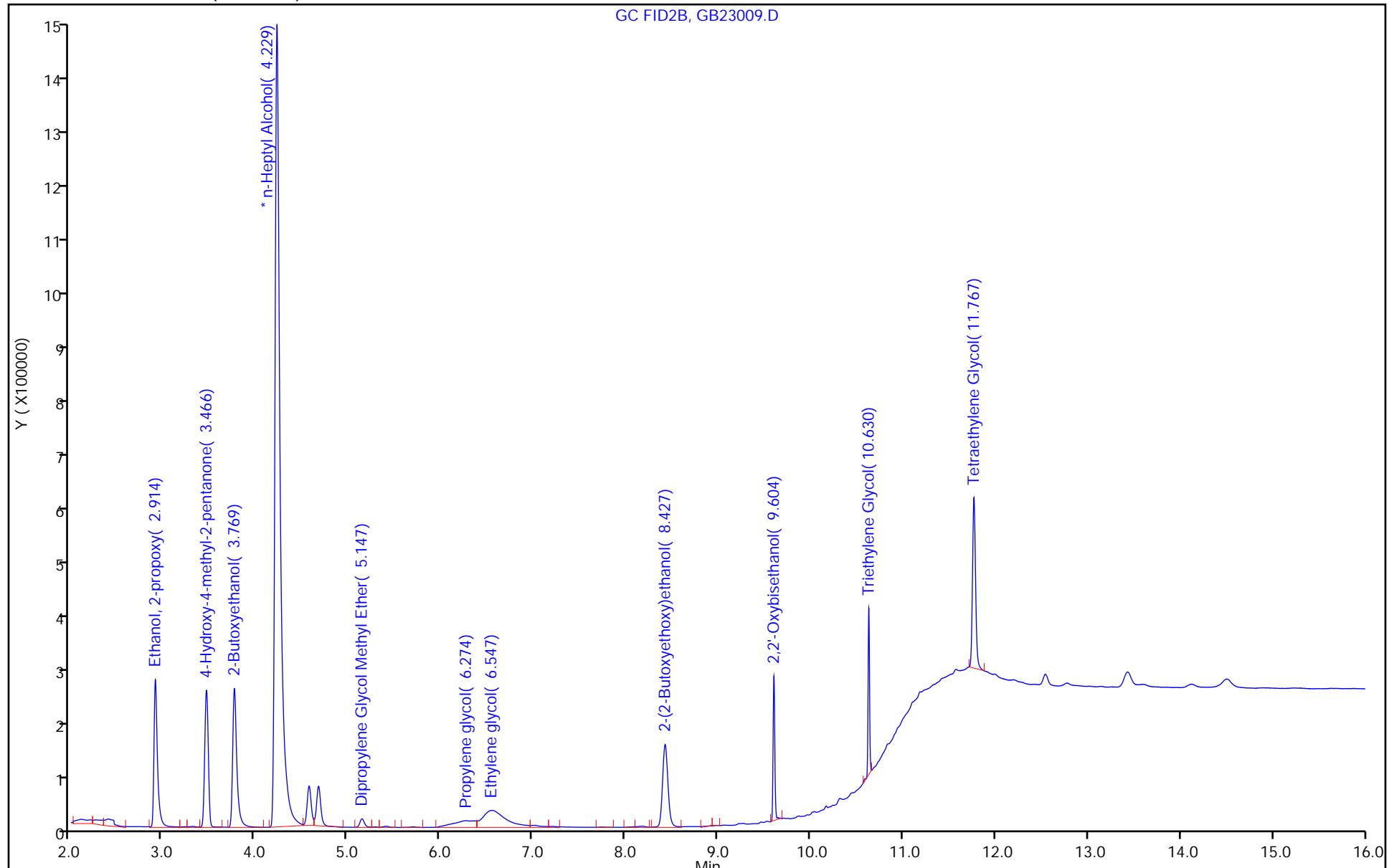
Report Date: 24-Feb-2023 13:23:53

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230223-84021.b\\GB23009.D  
Injection Date: 23-Feb-2023 19:39:01 Instrument ID: CVGG2  
Lims ID: ic g3 Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 9



## Eurofins Savannah

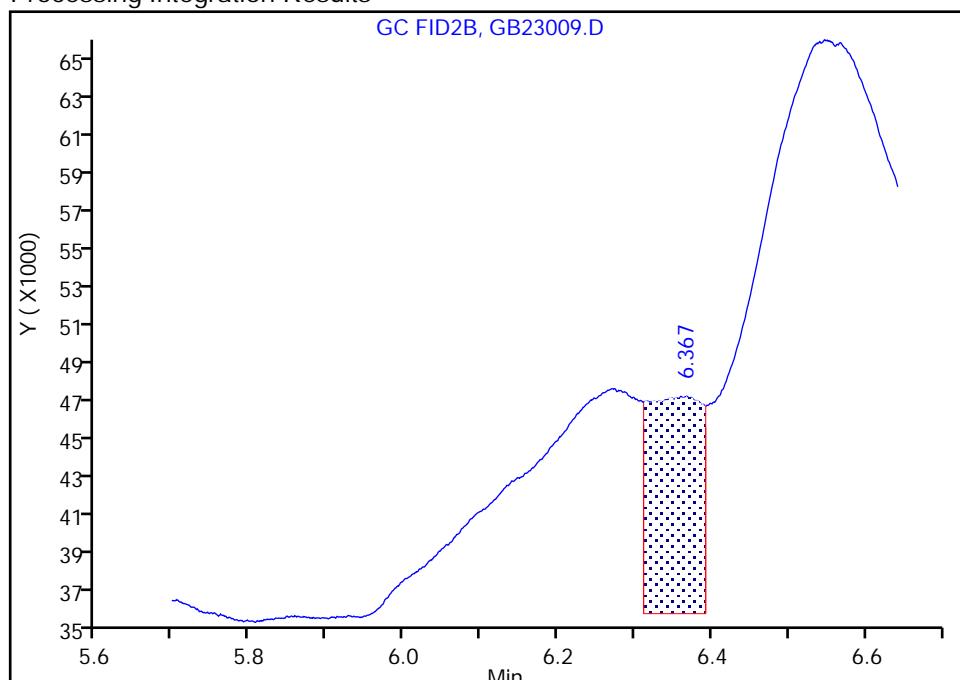
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23009.D  
 Injection Date: 23-Feb-2023 19:39:01 Instrument ID: CVGG2  
 Lims ID: ic g3  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 9  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

### 6 Propylene glycol, CAS: 57-55-6

Signal: 1

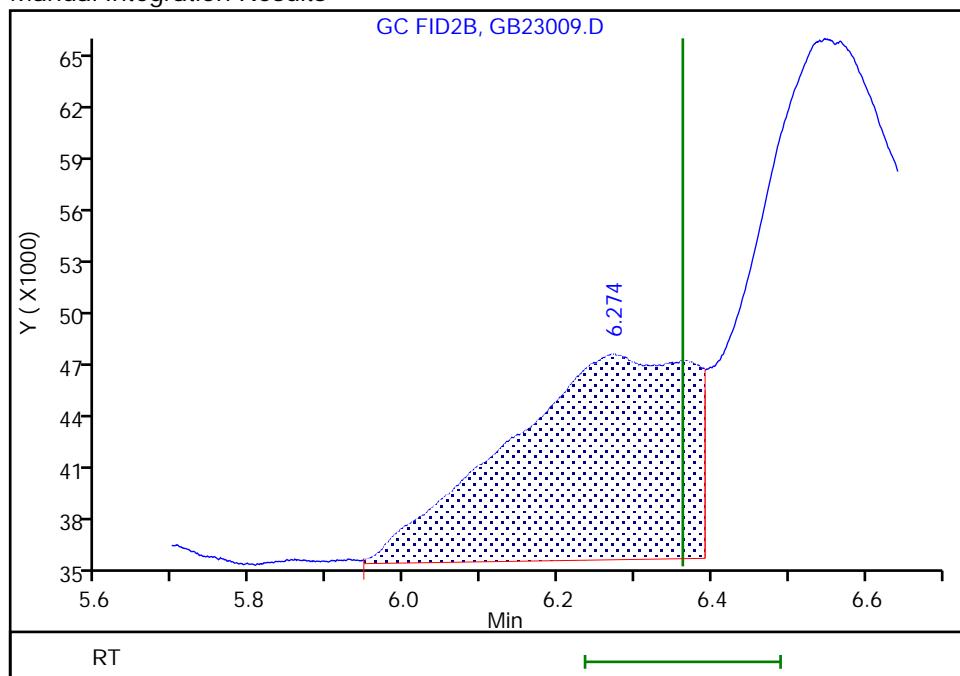
RT: 6.37  
 Area: 52016  
 Amount: 2.673511  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.27  
 Area: 188734  
 Amount: 8.355841  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:12:26

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

## Eurofins Savannah

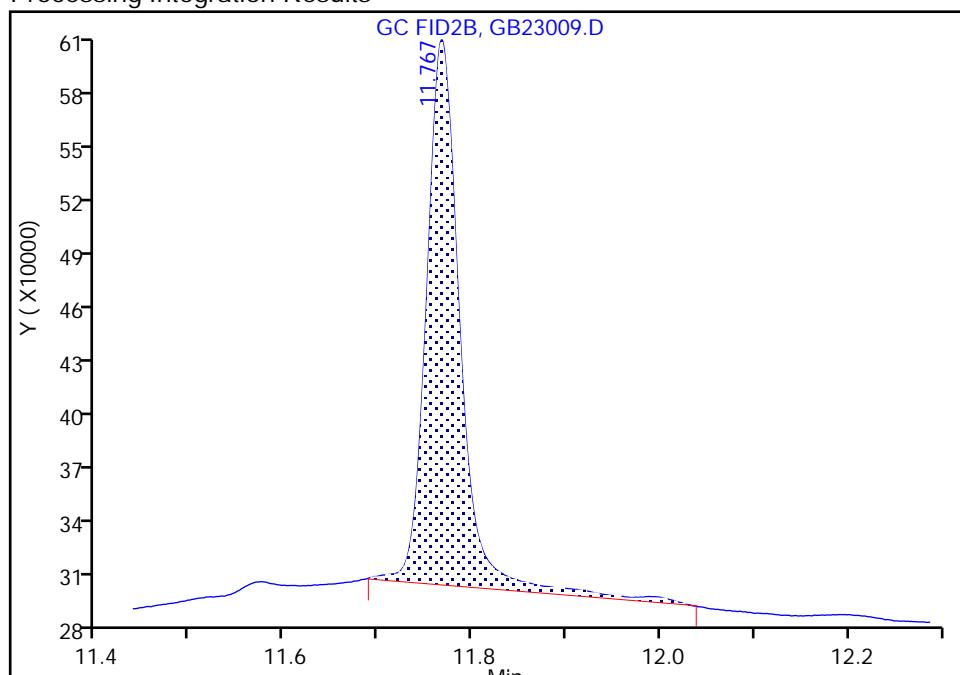
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23009.D  
 Injection Date: 23-Feb-2023 19:39:01 Instrument ID: CVGG2  
 Lims ID: ic g3  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 9  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

## 11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

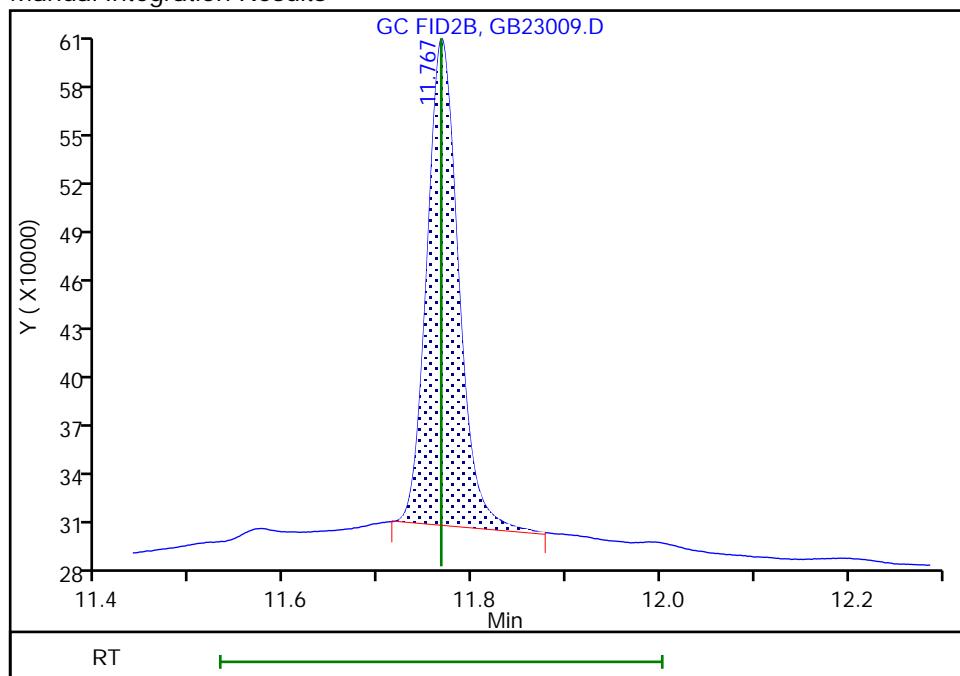
RT: 11.77  
 Area: 741027  
 Amount: 18.553814  
 Amount Units: ug/ml

## Processing Integration Results



RT: 11.77  
 Area: 683040  
 Amount: 18.801645  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:15:18

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23010.D  
 Lims ID: ic g2  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 23-Feb-2023 20:02:32 ALS Bottle#: 0 Worklist Smp#: 10  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084021-010  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 24-Feb-2023 13:23:54 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1637

First Level Reviewer: SK9U Date: 24-Feb-2023 11:03:08

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy 2.911	2.912	-0.001	325093	5.00	4.93	
2 4-Hydroxy-4-methyl-2-pentanone 3.461	3.461	0.000	312940	5.00	4.84	
3 2-Butoxyethanol 3.767	3.767	0.000	367255	5.00	4.94	
* 4 n-Heptyl Alcohol 4.230	4.231	-0.001	4871171	50.0	50.0	
5 Dipropylene Glycol Methyl Ether 5.147	5.144	0.003	25757	5.00	4.74	
6 Propylene glycol 6.261	6.362	-0.101	119218	5.00	5.51	Ma
7 Ethylene glycol 6.543	6.547	-0.004	284223	5.00	5.60	Ma
8 2-(2-Butoxyethoxy)ethanol 8.425	8.426	-0.001	309195	5.00	4.82	
9 2,2'-Oxybisethanol 9.603	9.602	0.001	167783	5.00	4.51	
10 Triethylene Glycol 10.630	10.630	0.000	164825	5.00	5.26	
11 Tetraethylene Glycol 11.766	11.767	-0.001	356548	10.0	10.7	M M

### QC Flag Legend

Processing Flags

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

SG\_Gly\_CAL\_00048

Amount Added: 2.50

Units: uL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

Run Reagent

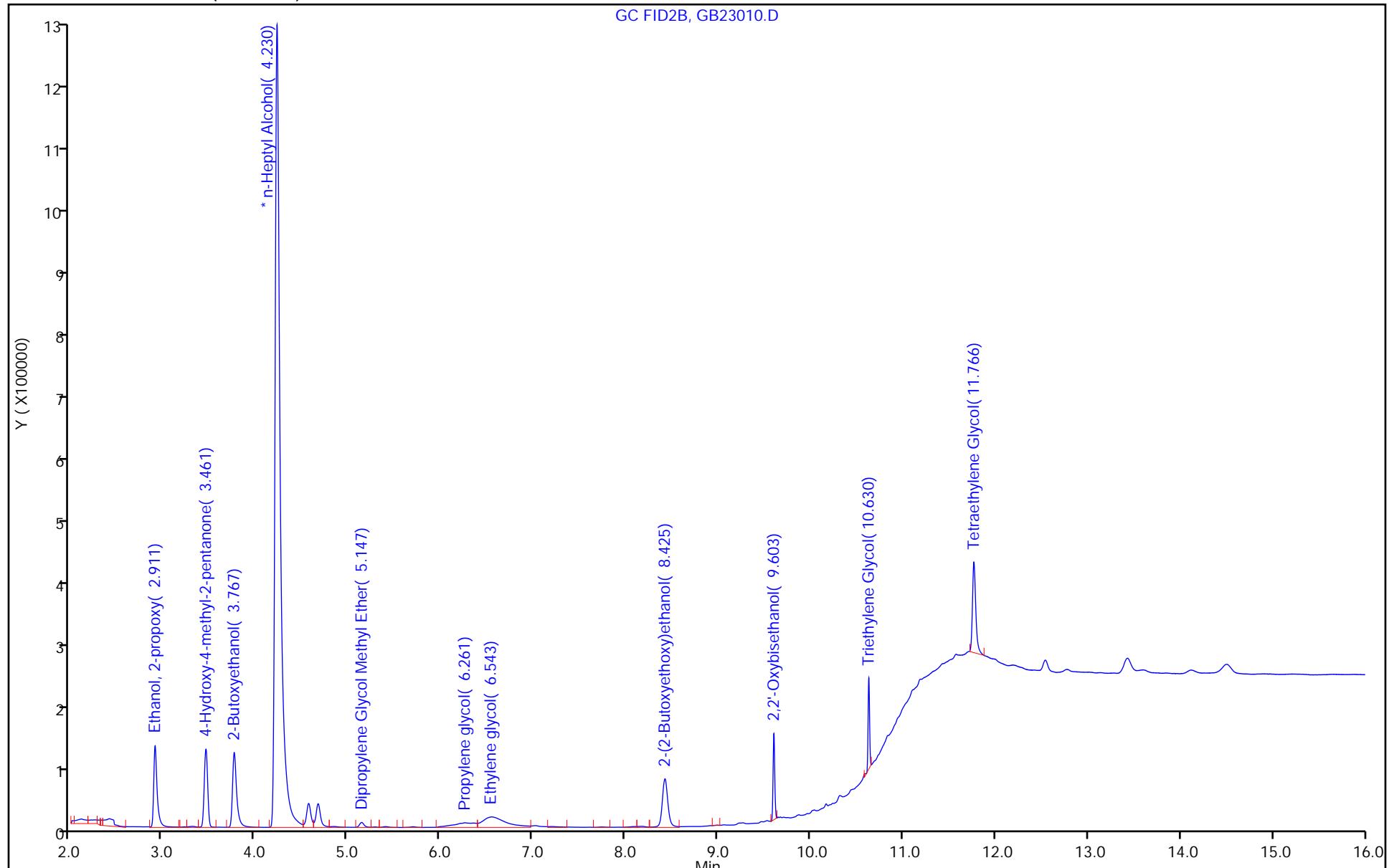
Report Date: 24-Feb-2023 13:23:54

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230223-84021.b\\GB23010.D  
Injection Date: 23-Feb-2023 20:02:32 Instrument ID: CVGG2  
Lims ID: ic g2 Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 10



## Eurofins Savannah

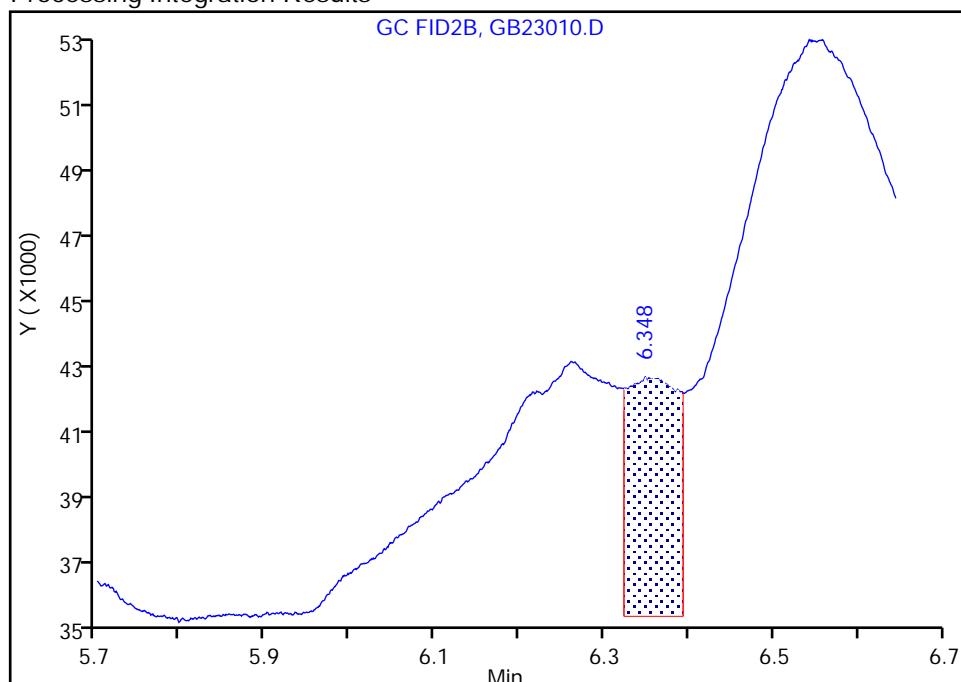
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23010.D  
 Injection Date: 23-Feb-2023 20:02:32 Instrument ID: CVGG2  
 Lims ID: ic g2  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 10  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

**6 Propylene glycol, CAS: 57-55-6**

Signal: 1

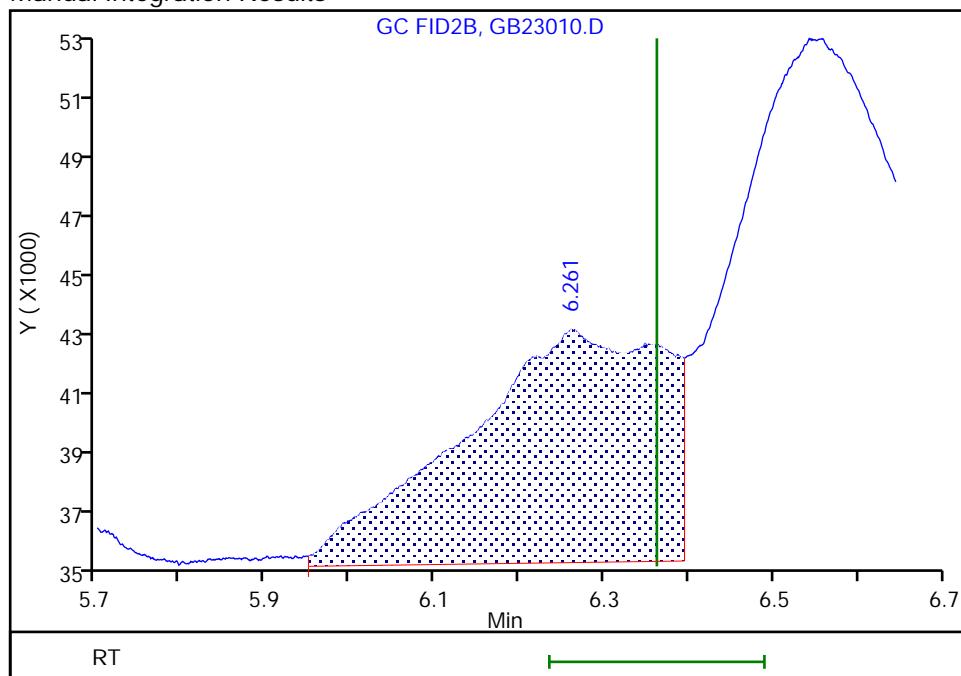
RT: 6.35  
 Area: 27335  
 Amount: 1.539820  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.26  
 Area: 119218  
 Amount: 5.513681  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:12:55

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

## Eurofins Savannah

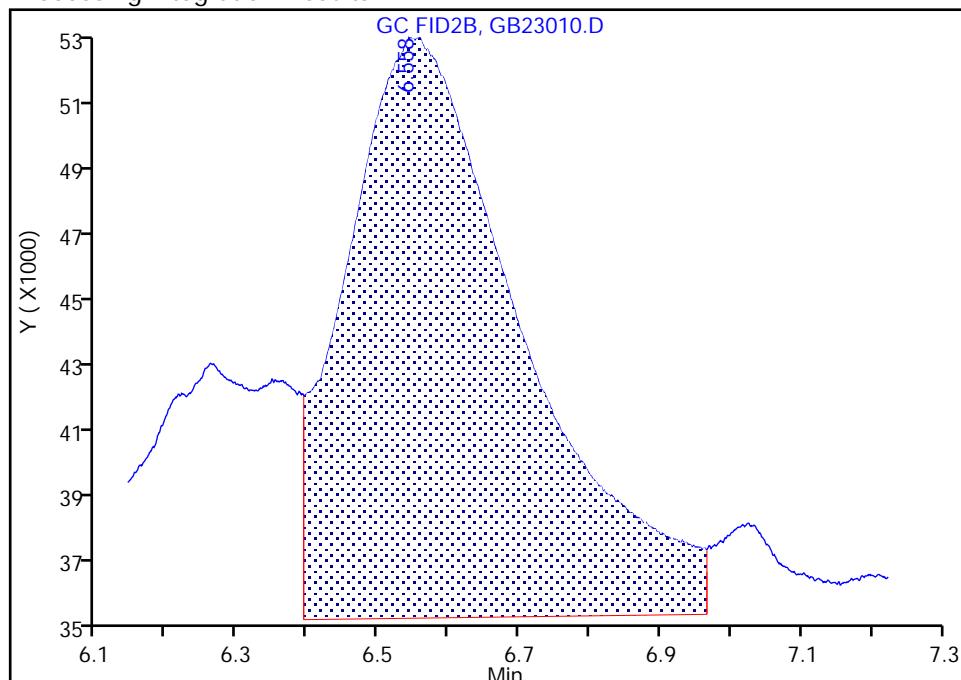
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23010.D  
 Injection Date: 23-Feb-2023 20:02:32 Instrument ID: CVGG2  
 Lims ID: ic g2  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 10  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

### 7 Ethylene glycol, CAS: 107-21-1

Signal: 1

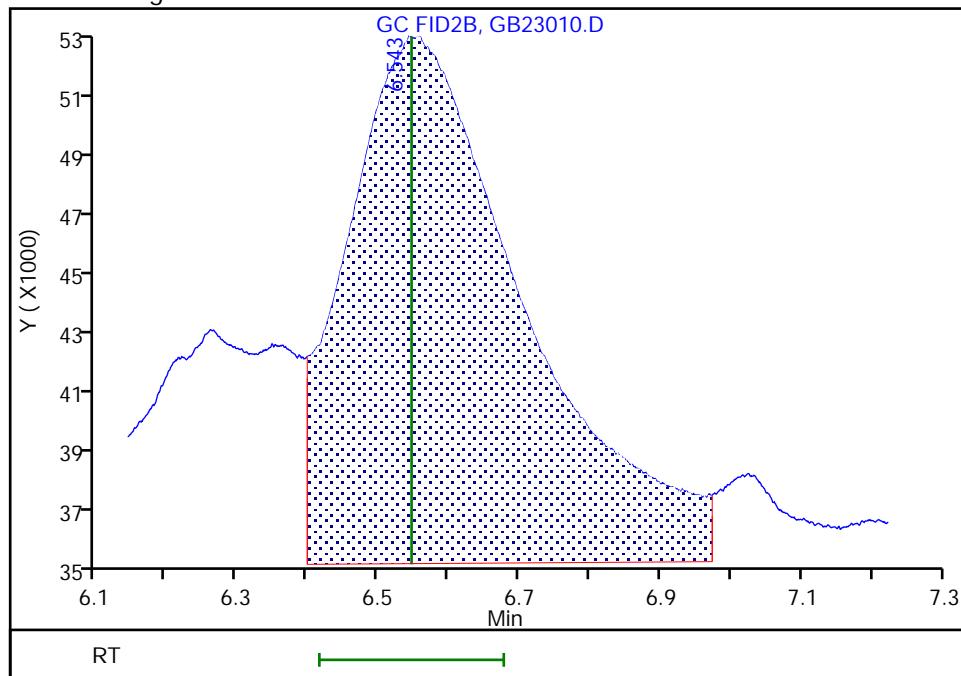
RT: 6.56  
 Area: 280736  
 Amount: 5.350752  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.54  
 Area: 284223  
 Amount: 5.595991  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:12:58

Audit Action: Manually Integrated/Assigned Compound ID

Audit Reason: Baseline Smoothing

## Eurofins Savannah

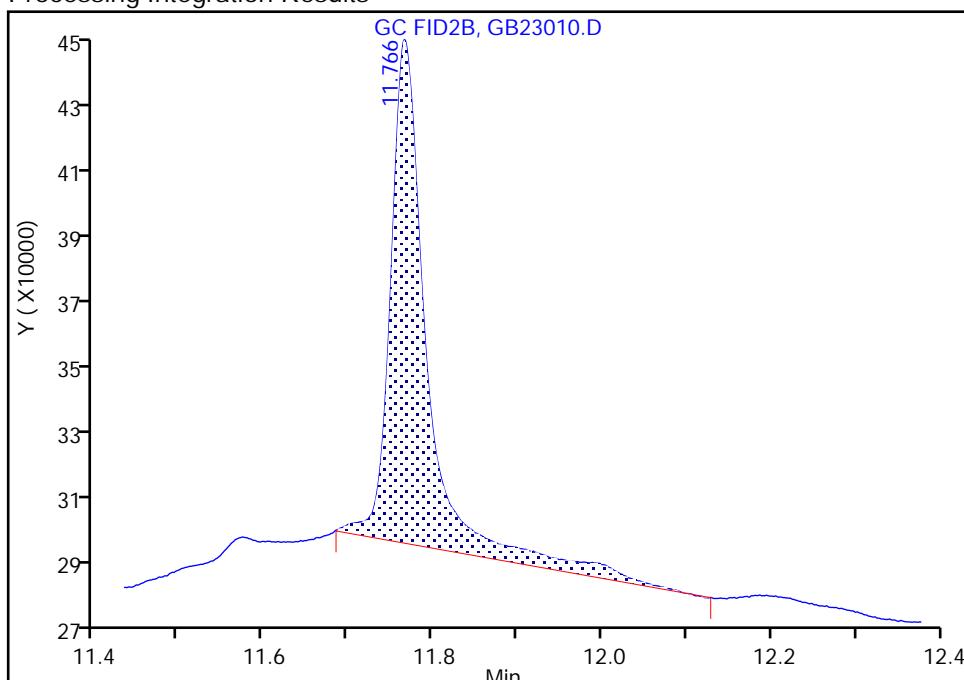
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23010.D  
 Injection Date: 23-Feb-2023 20:02:32 Instrument ID: CVGG2  
 Lims ID: ic g2  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 10  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

## 11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

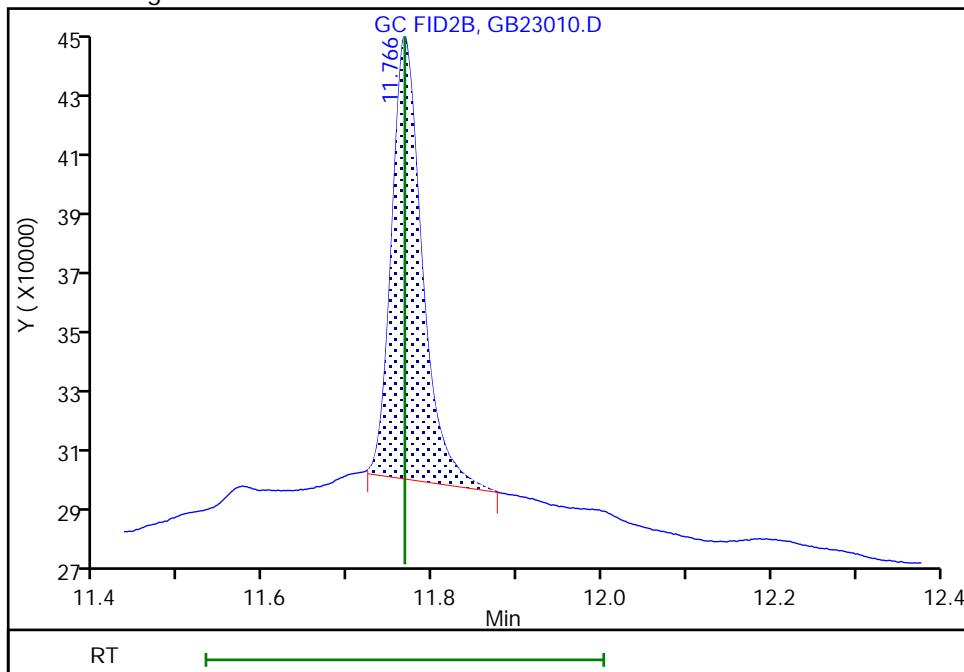
RT: 11.77  
 Area: 436932  
 Amount: 10.552417  
 Amount Units: ug/ml

## Processing Integration Results



RT: 11.77  
 Area: 356548  
 Amount: 10.737446  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:15:04

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Lims ID: ic g1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 23-Feb-2023 20:25:53 ALS Bottle#: 0 Worklist Smp#: 11  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084021-011  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 24-Feb-2023 13:23:55 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1637

First Level Reviewer: SK9U Date: 24-Feb-2023 11:03:48

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
-----------	---------------	---------------	----------	---------------	-----------------	-------

1 Ethanol, 2-propoxy						
2.910	2.912	-0.002	170693	2.00	2.00	
2 4-Hydroxy-4-methyl-2-pentanone						
3.462	3.461	0.001	165584	2.00	2.03	
3 2-Butoxyethanol						
3.766	3.767	-0.001	197529	2.00	2.00	
* 4 n-Heptyl Alcohol						
4.229	4.231	-0.002	4996789	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.146	5.144	0.002	14138	2.00	2.08	
6 Propylene glycol						Ma
6.259	6.362	-0.103	71503	2.00	2.87	Ma
7 Ethylene glycol						Ma
6.564	6.547	0.017	169197	2.00	3.25	Ma
8 2-(2-Butoxyethoxy)ethanol						
8.424	8.426	-0.002	174322	2.00	2.06	
9 2,2'-Oxybisethanol						
9.604	9.602	0.002	102648	2.00	2.40	
10 Triethylene Glycol						
10.630	10.630	0.000	104266	2.00	3.24	
11 Tetraethylene Glycol						M
11.769	11.767	0.002	228821	4.00	6.72	M

### QC Flag Legend

Processing Flags

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

SG\_Gly\_CAL\_00048

Amount Added: 1.00

Units: uL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

Run Reagent

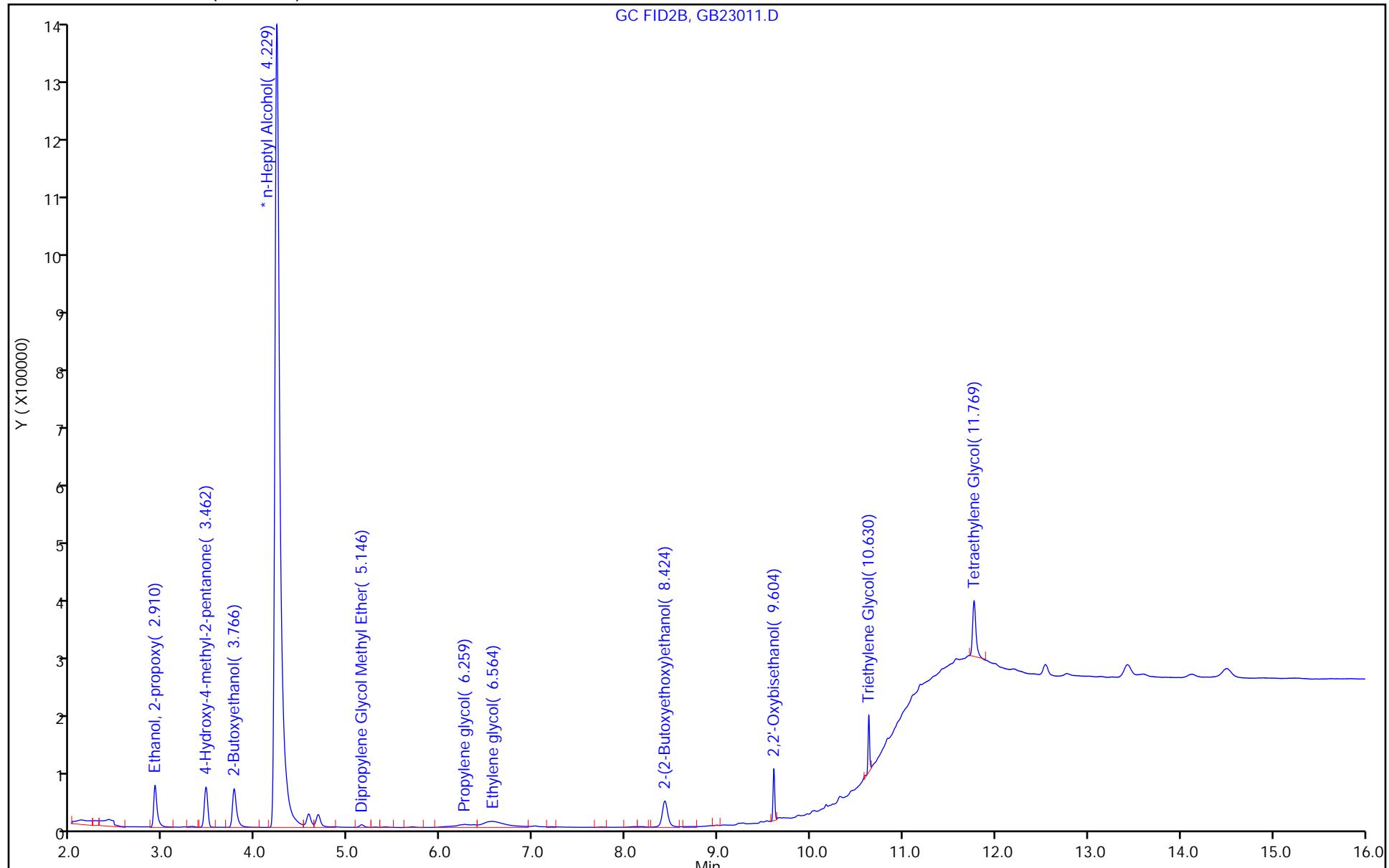
Report Date: 24-Feb-2023 13:23:55

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230223-84021.b\\GB23011.D  
Injection Date: 23-Feb-2023 20:25:53 Instrument ID: CVGG2  
Lims ID: ic g1 Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 11



## Eurofins Savannah

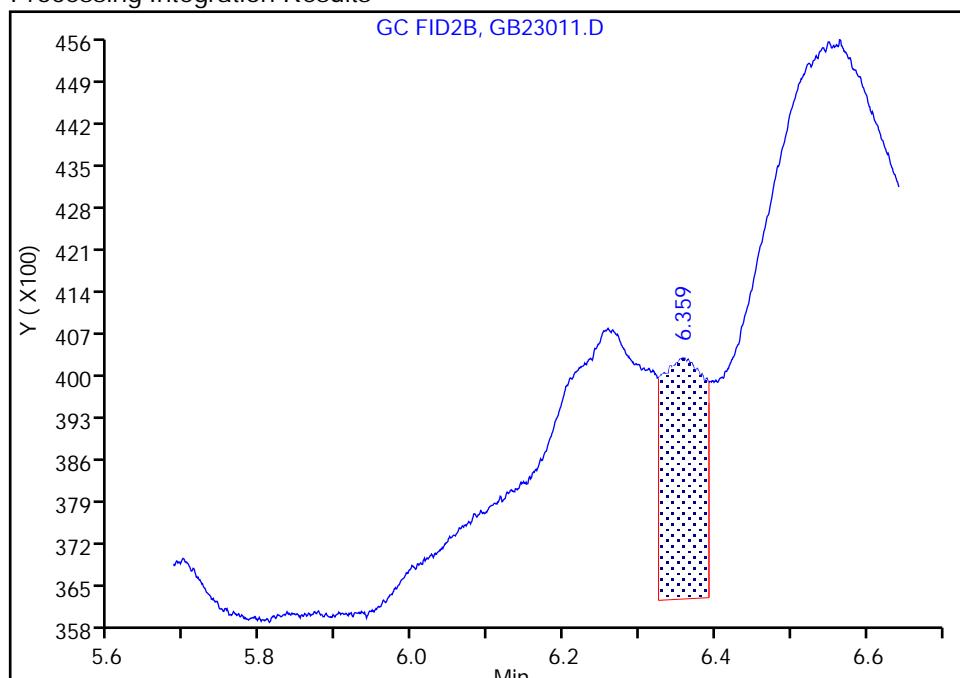
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Injection Date: 23-Feb-2023 20:25:53 Instrument ID: CVGG2  
 Lims ID: ic g1  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 11  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

**6 Propylene glycol, CAS: 57-55-6**

Signal: 1

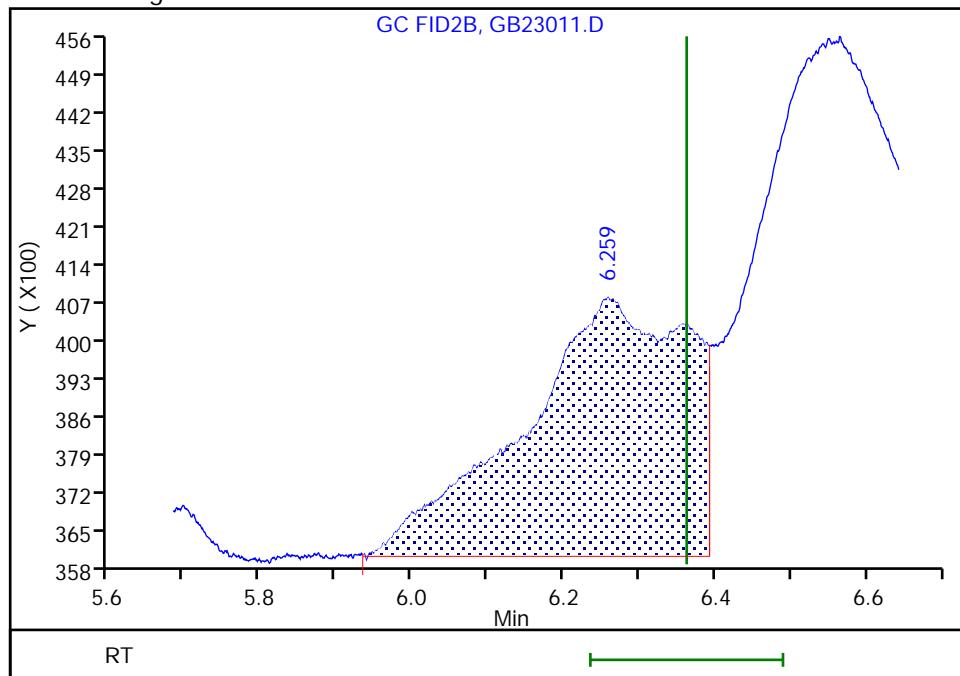
RT: 6.36  
 Area: 15411  
 Amount: 1.264640  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.26  
 Area: 71503  
 Amount: 2.868053  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:13:28

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

## Eurofins Savannah

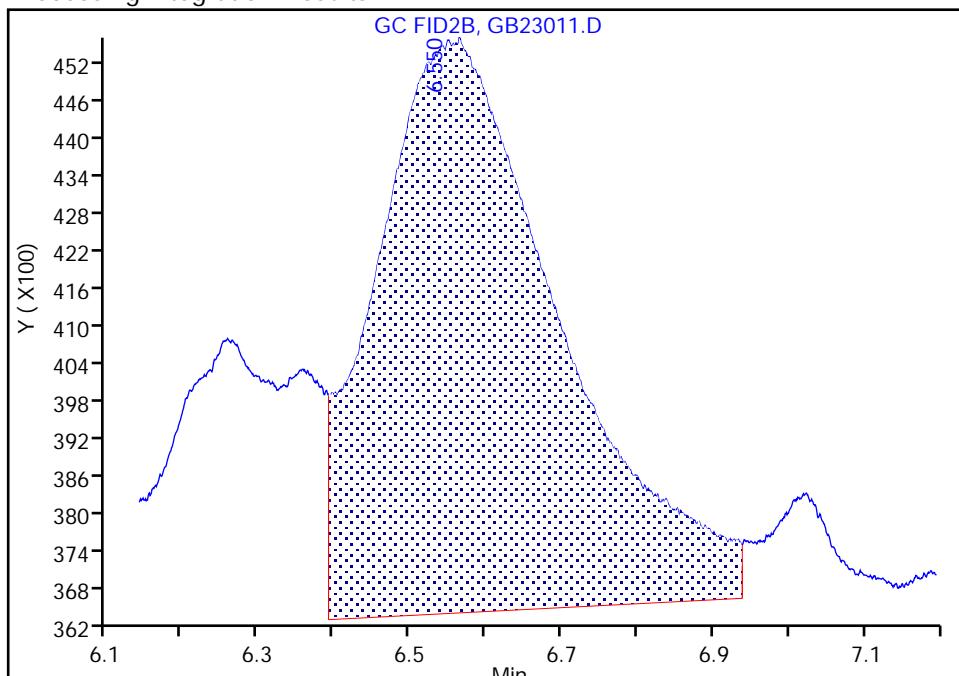
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Injection Date: 23-Feb-2023 20:25:53 Instrument ID: CVGG2  
 Lims ID: ic g1  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 11  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

### 7 Ethylene glycol, CAS: 107-21-1

Signal: 1

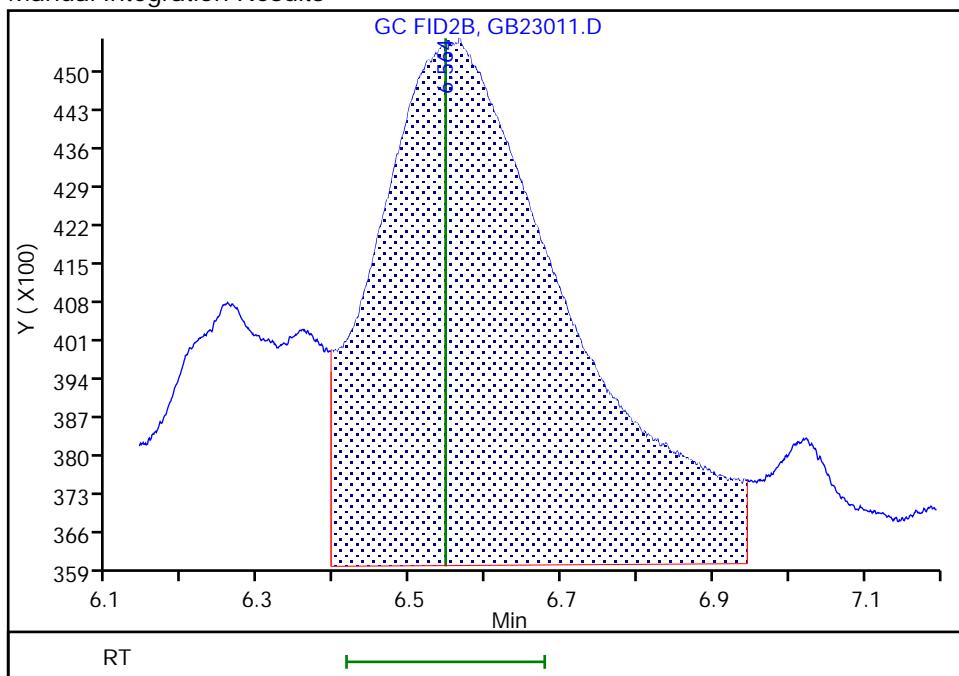
RT: 6.55  
 Area: 154847  
 Amount: 2.408684  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.56  
 Area: 169197  
 Amount: 3.247527  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:13:25

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

## Eurofins Savannah

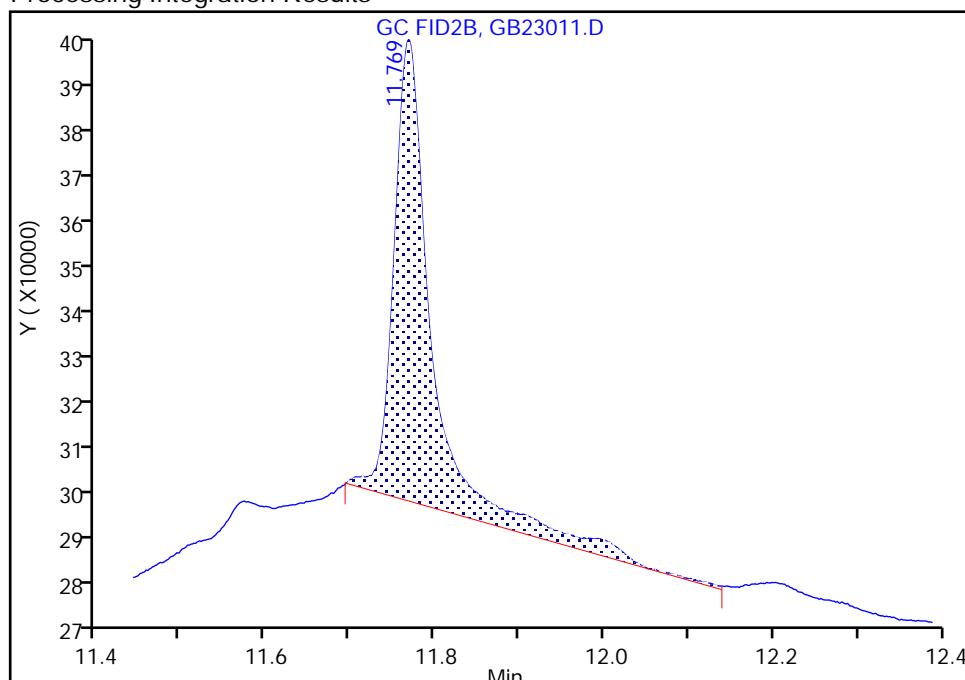
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Injection Date: 23-Feb-2023 20:25:53 Instrument ID: CVGG2  
 Lims ID: ic g1  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 11  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

## 11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

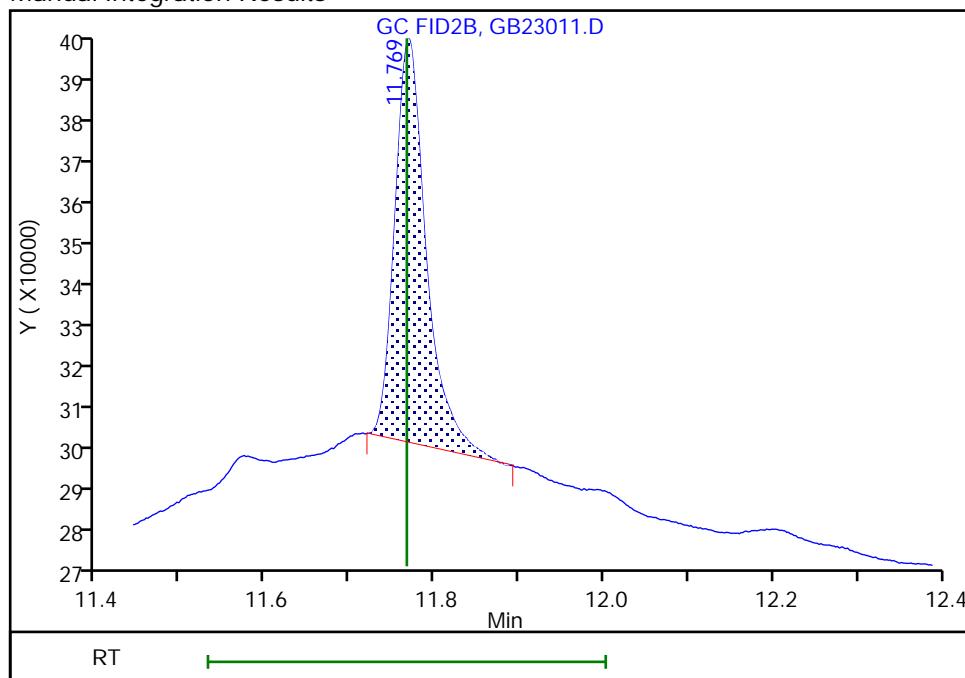
RT: 11.77  
 Area: 291966  
 Amount: 4.232468  
 Amount Units: ug/ml

## Processing Integration Results



RT: 11.77  
 Area: 228821  
 Amount: 6.717710  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:14:51

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

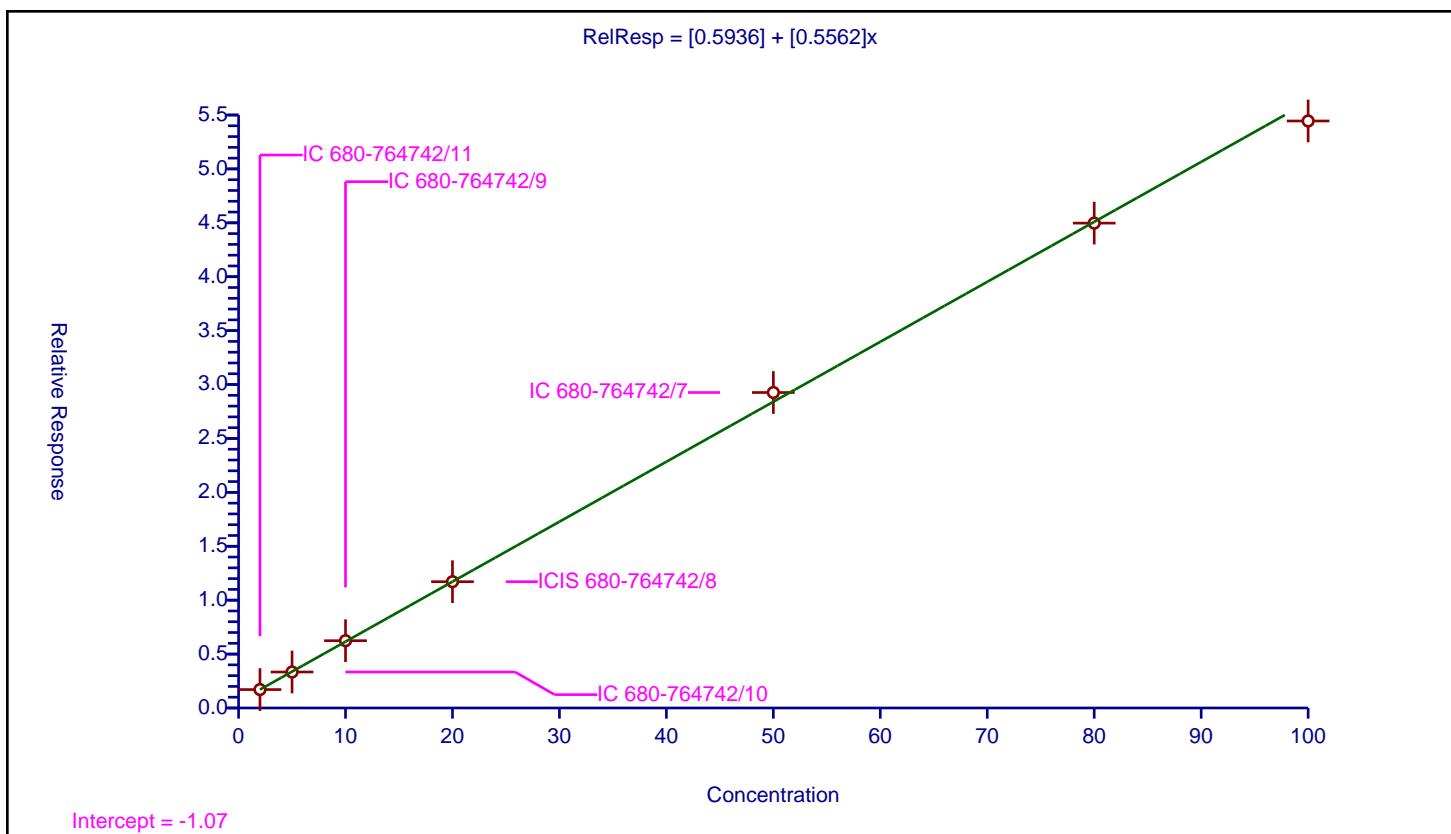
## Calibration

/ Ethanol, 2-propoxy

Curve Type: Linear  
 Weighting: Conc\_Sq  
 Origin: None  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0.5936
Slope:	0.5562
Error Coefficients	
Standard Error:	3060000
Relative Standard Error:	2.2
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-764742/11	2.0	1.708027	50.0	4996789.0	0.854013	Y
2	IC 680-764742/10	5.0	3.336908	50.0	4871171.0	0.667382	Y
3	IC 680-764742/9	10.0	6.241724	50.0	5329257.0	0.624172	Y
4	ICIS 680-764742/8	20.0	11.713943	50.0	4583875.0	0.585697	Y
5	IC 680-764742/7	50.0	29.262048	50.0	4290074.0	0.585241	Y
6	IC 680-764742/6	80.0	44.973599	50.0	4647729.0	0.56217	Y
7	IC 680-764742/5	100.0	54.44588	50.0	4234617.0	0.544459	Y



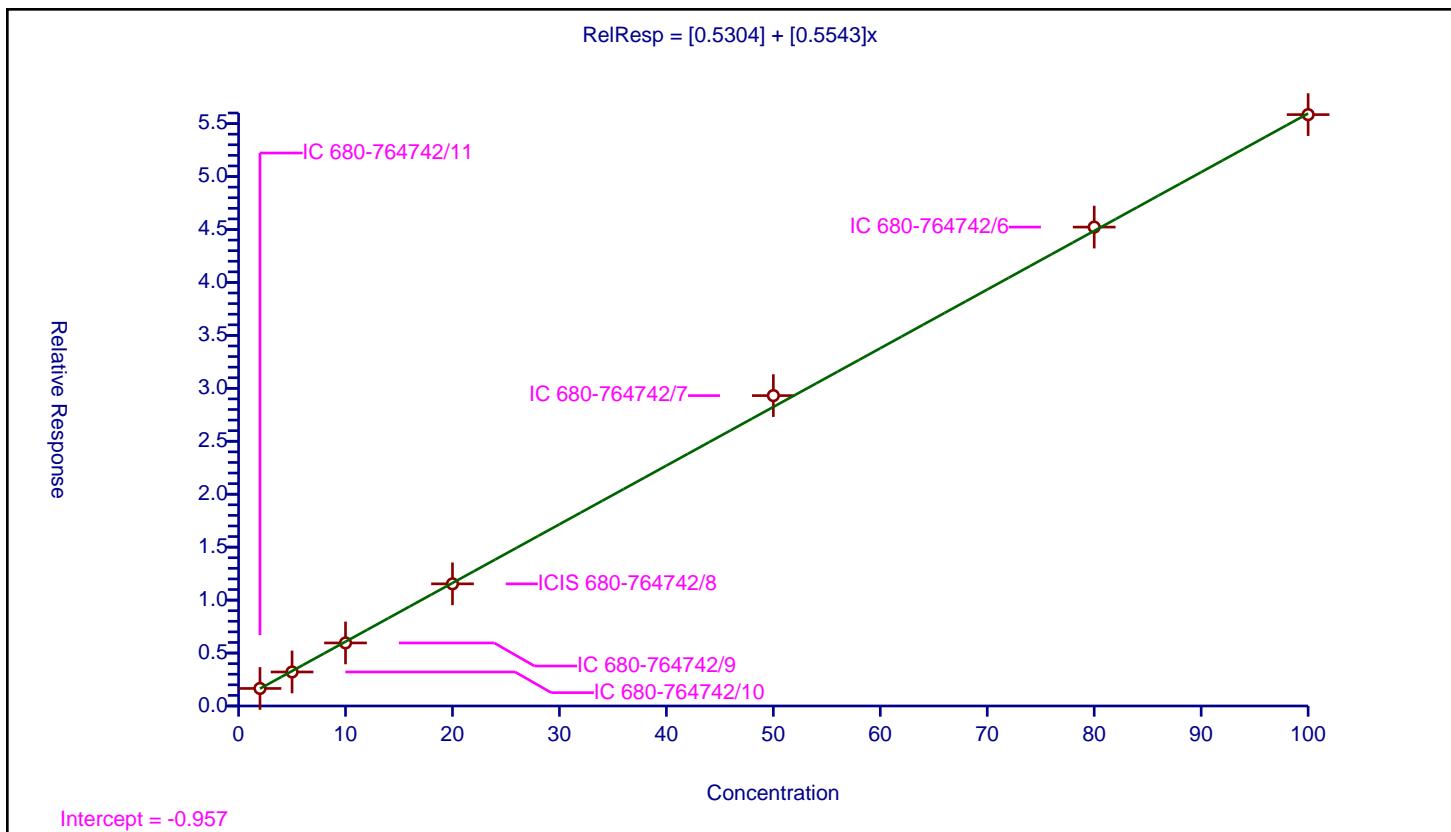
## Calibration

/ 4-Hydroxy-4-methyl-2-pentanone

Curve Type: Linear  
 Weighting: Conc\_Sq  
 Origin: None  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0.5304
Slope:	0.5543
Error Coefficients	
Standard Error:	3100000
Relative Standard Error:	2.6
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-764742/11	2.0	1.656904	50.0	4996789.0	0.828452	Y
2	IC 680-764742/10	5.0	3.212164	50.0	4871171.0	0.642433	Y
3	IC 680-764742/9	10.0	5.955727	50.0	5329257.0	0.595573	Y
4	ICIS 680-764742/8	20.0	11.534357	50.0	4583875.0	0.576718	Y
5	IC 680-764742/7	50.0	29.313189	50.0	4290074.0	0.586264	Y
6	IC 680-764742/6	80.0	45.225206	50.0	4647729.0	0.565315	Y
7	IC 680-764742/5	100.0	55.848971	50.0	4234617.0	0.55849	Y



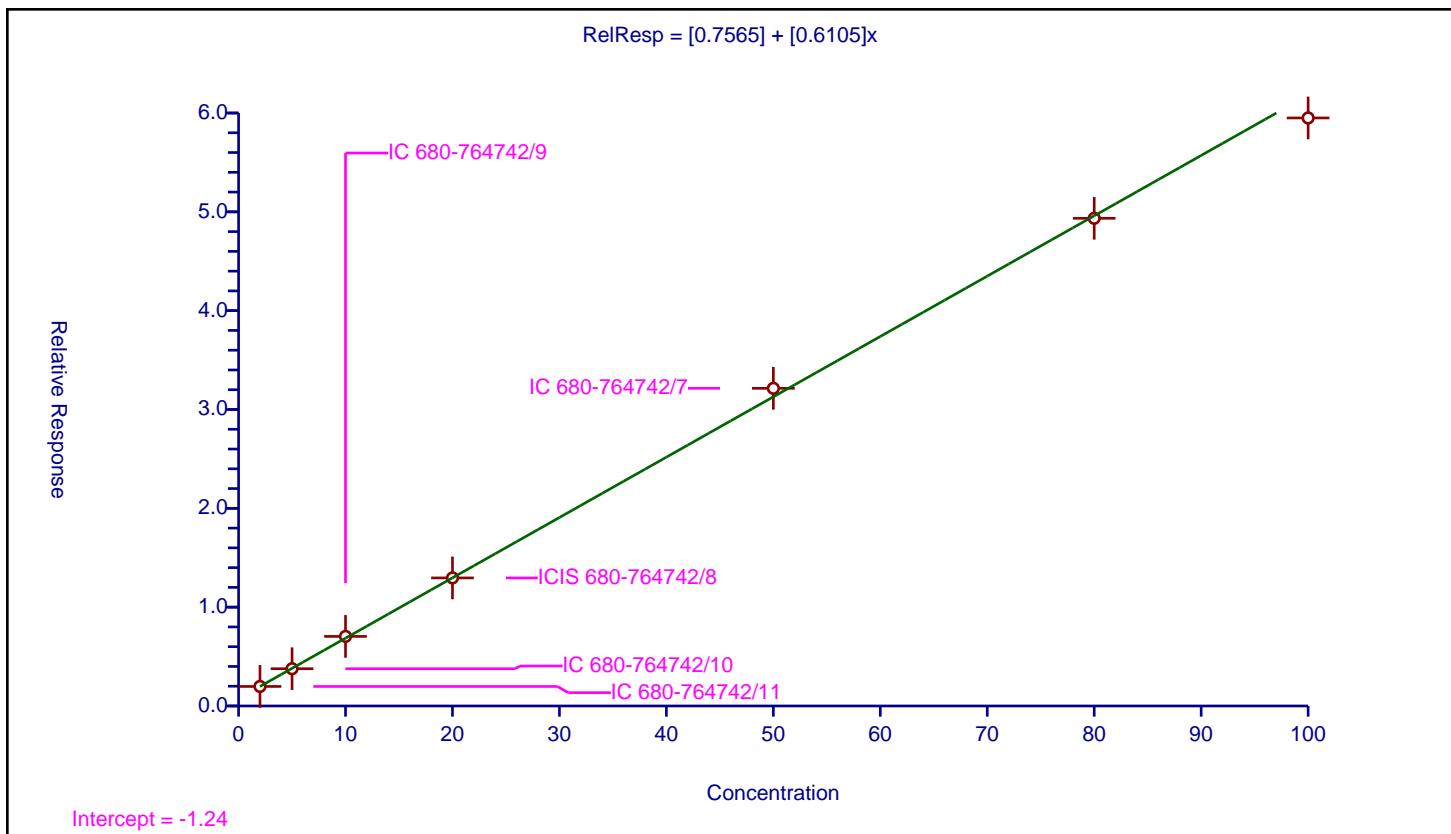
## Calibration

/ 2-Butoxyethanol

Curve Type: Linear  
 Weighting: Conc\_Sq  
 Origin: None  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0.7565
Slope:	0.6105
Error Coefficients	
Standard Error:	3350000
Relative Standard Error:	2.6
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-764742/11	2.0	1.976559	50.0	4996789.0	0.98828	Y
2	IC 680-764742/10	5.0	3.769679	50.0	4871171.0	0.753936	Y
3	IC 680-764742/9	10.0	7.041657	50.0	5329257.0	0.704166	Y
4	ICIS 680-764742/8	20.0	12.95897	50.0	4583875.0	0.647949	Y
5	IC 680-764742/7	50.0	32.142208	50.0	4290074.0	0.642844	Y
6	IC 680-764742/6	80.0	49.347628	50.0	4647729.0	0.616845	Y
7	IC 680-764742/5	100.0	59.50191	50.0	4234617.0	0.595019	Y



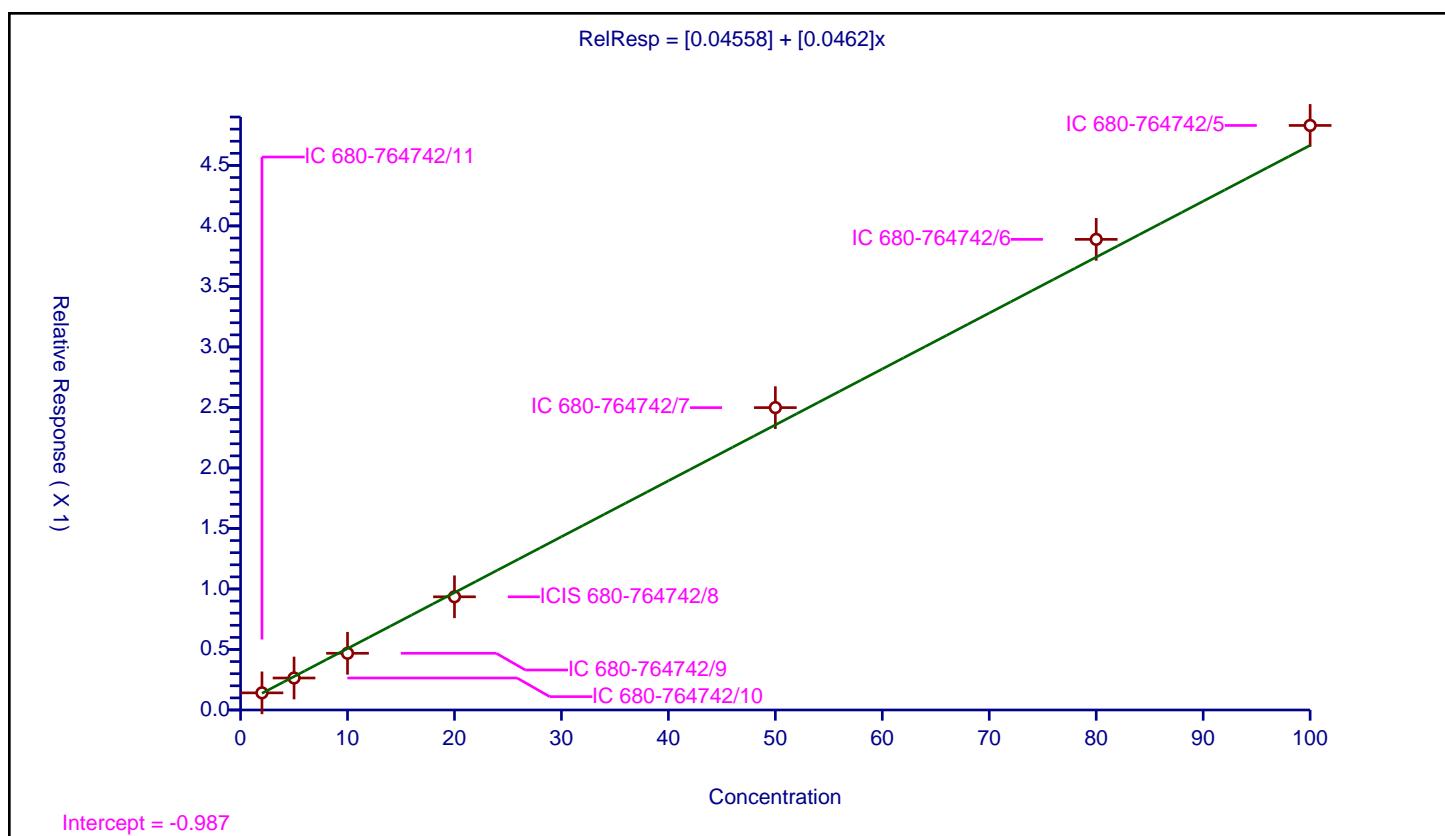
## Calibration

/ Dipropylene Glycol Methyl Ether

Curve Type: Linear  
 Weighting: Conc\_Sq  
 Origin: None  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0.04558
Slope:	0.0462
Error Coefficients	
Standard Error:	266000
Relative Standard Error:	6.2
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-764742/11	2.0	0.141471	50.0	4996789.0	0.070735	Y
2	IC 680-764742/10	5.0	0.264382	50.0	4871171.0	0.052876	Y
3	IC 680-764742/9	10.0	0.468517	50.0	5329257.0	0.046852	Y
4	ICIS 680-764742/8	20.0	0.935399	50.0	4583875.0	0.04677	Y
5	IC 680-764742/7	50.0	2.49843	50.0	4290074.0	0.049969	Y
6	IC 680-764742/6	80.0	3.888899	50.0	4647729.0	0.048611	Y
7	IC 680-764742/5	100.0	4.830437	50.0	4234617.0	0.048304	Y



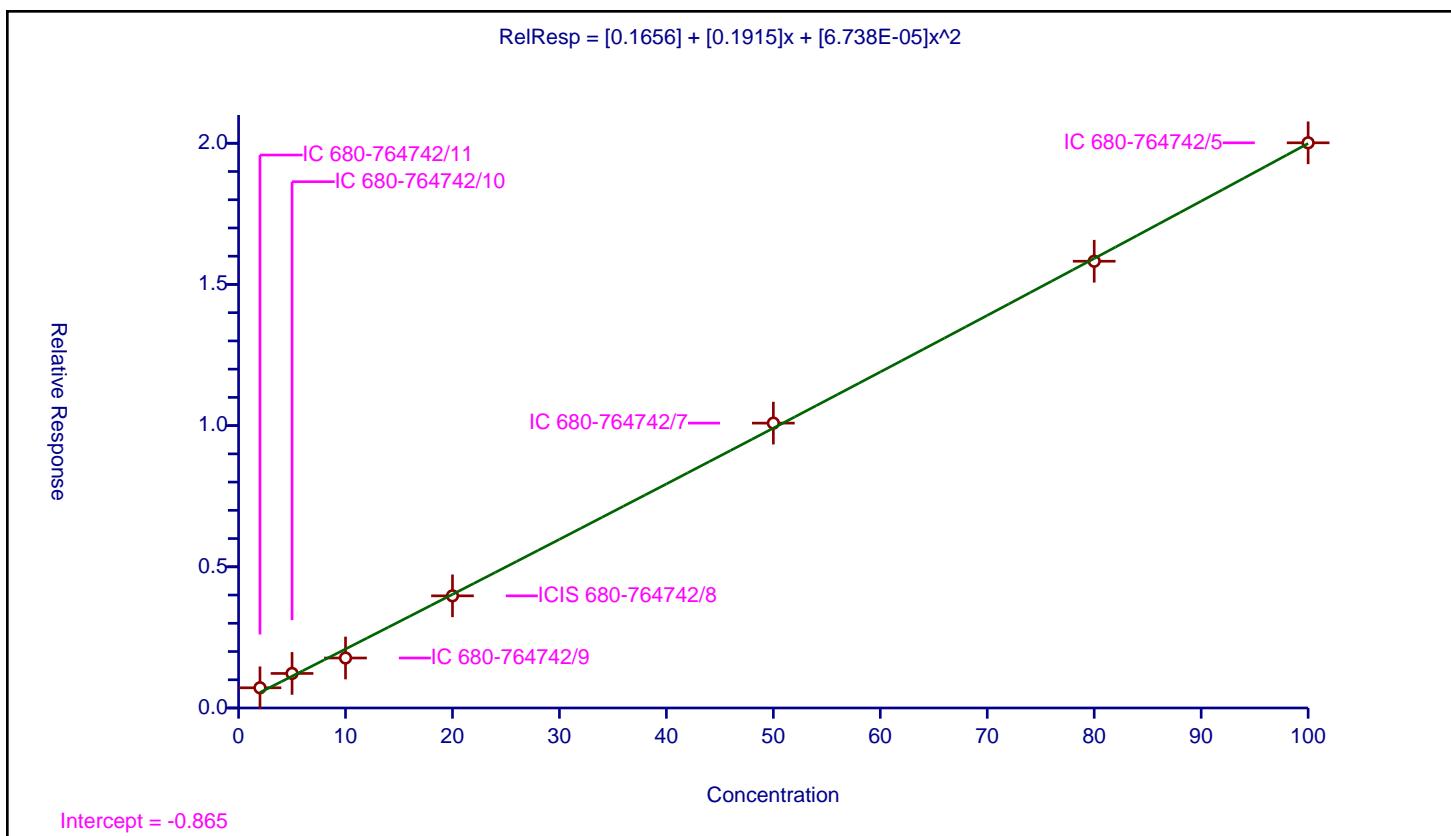
## Calibration

/ Propylene glycol

**Curve Type:** Quadratic  
**Weighting:** None  
**Origin:** None  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0.1656
<b>Slope:</b>	0.1915
<b>Second Order:</b>	6.738E-05
Error Coefficients	
<b>Standard Error:</b>	1220000
<b>Relative Standard Error:</b>	23.8
<b>Correlation Coefficient:</b>	0.997
<b>Coefficient of Determination (Adjusted):</b>	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-764742/11	2.0	0.715489	50.0	4996789.0	0.357745	Y
2	IC 680-764742/10	5.0	1.22371	50.0	4871171.0	0.244742	Y
3	IC 680-764742/9	10.0	1.770735	50.0	5329257.0	0.177073	Y
4	ICIS 680-764742/8	20.0	3.971978	50.0	4583875.0	0.198599	Y
5	IC 680-764742/7	50.0	10.088124	50.0	4290074.0	0.201762	Y
6	IC 680-764742/6	80.0	15.822179	50.0	4647729.0	0.197777	Y
7	IC 680-764742/5	100.0	20.015647	50.0	4234617.0	0.200156	Y



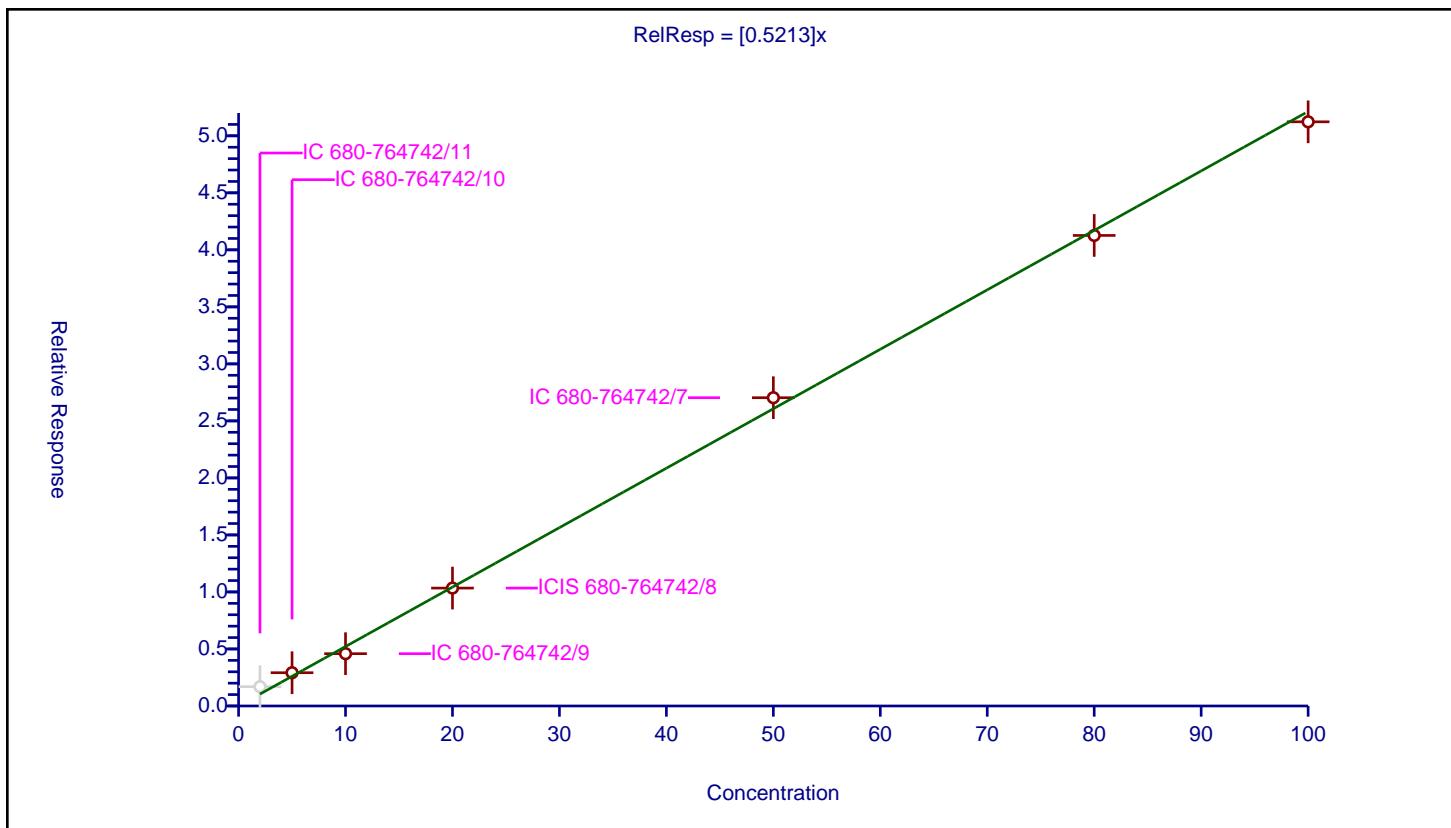
## Calibration

/ Ethylene glycol

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	0.5213
Error Coefficients	
Standard Error:	2830000
Relative Standard Error:	7.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-764742/11	2.0	1.693057	50.0	4996789.0	0.846529	N
2	IC 680-764742/10	5.0	2.917399	50.0	4871171.0	0.58348	Y
3	IC 680-764742/9	10.0	4.587957	50.0	5329257.0	0.458796	Y
4	ICIS 680-764742/8	20.0	10.339974	50.0	4583875.0	0.516999	Y
5	IC 680-764742/7	50.0	27.033764	50.0	4290074.0	0.540675	Y
6	IC 680-764742/6	80.0	41.263819	50.0	4647729.0	0.515798	Y
7	IC 680-764742/5	100.0	51.227714	50.0	4234617.0	0.512277	Y



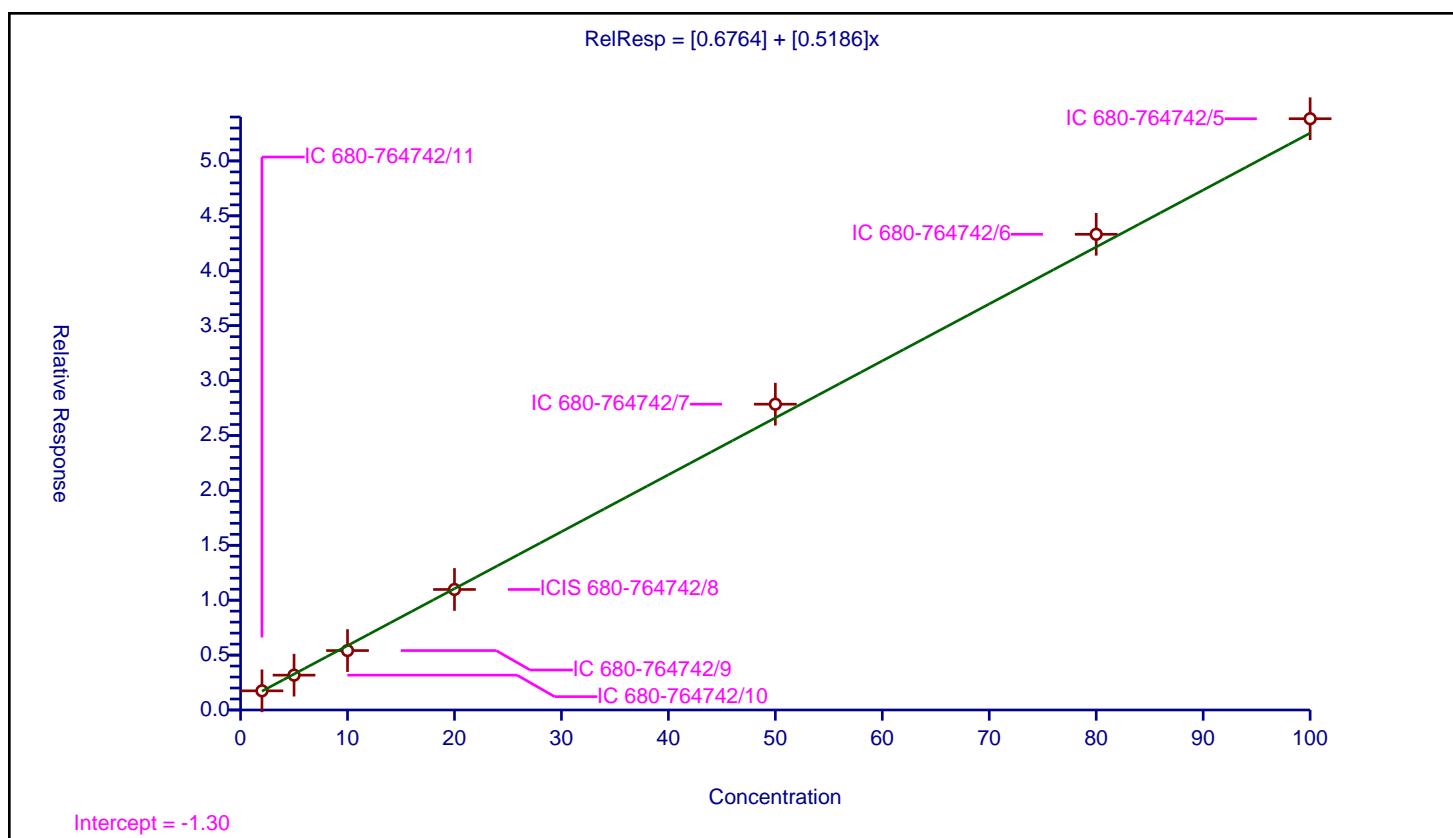
## Calibration

## / 2-(2-Butoxyethoxy)ethanol

Curve Type: Linear  
 Weighting: Conc\_Sq  
 Origin: None  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0.6764
Slope:	0.5186
Error Coefficients	
Standard Error:	2970000
Relative Standard Error:	5.2
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-764742/11	2.0	1.74434	50.0	4996789.0	0.87217	Y
2	IC 680-764742/10	5.0	3.173724	50.0	4871171.0	0.634745	Y
3	IC 680-764742/9	10.0	5.41158	50.0	5329257.0	0.541158	Y
4	ICIS 680-764742/8	20.0	10.976401	50.0	4583875.0	0.54882	Y
5	IC 680-764742/7	50.0	27.847352	50.0	4290074.0	0.556947	Y
6	IC 680-764742/6	80.0	43.31878	50.0	4647729.0	0.541485	Y
7	IC 680-764742/5	100.0	53.843642	50.0	4234617.0	0.538436	Y



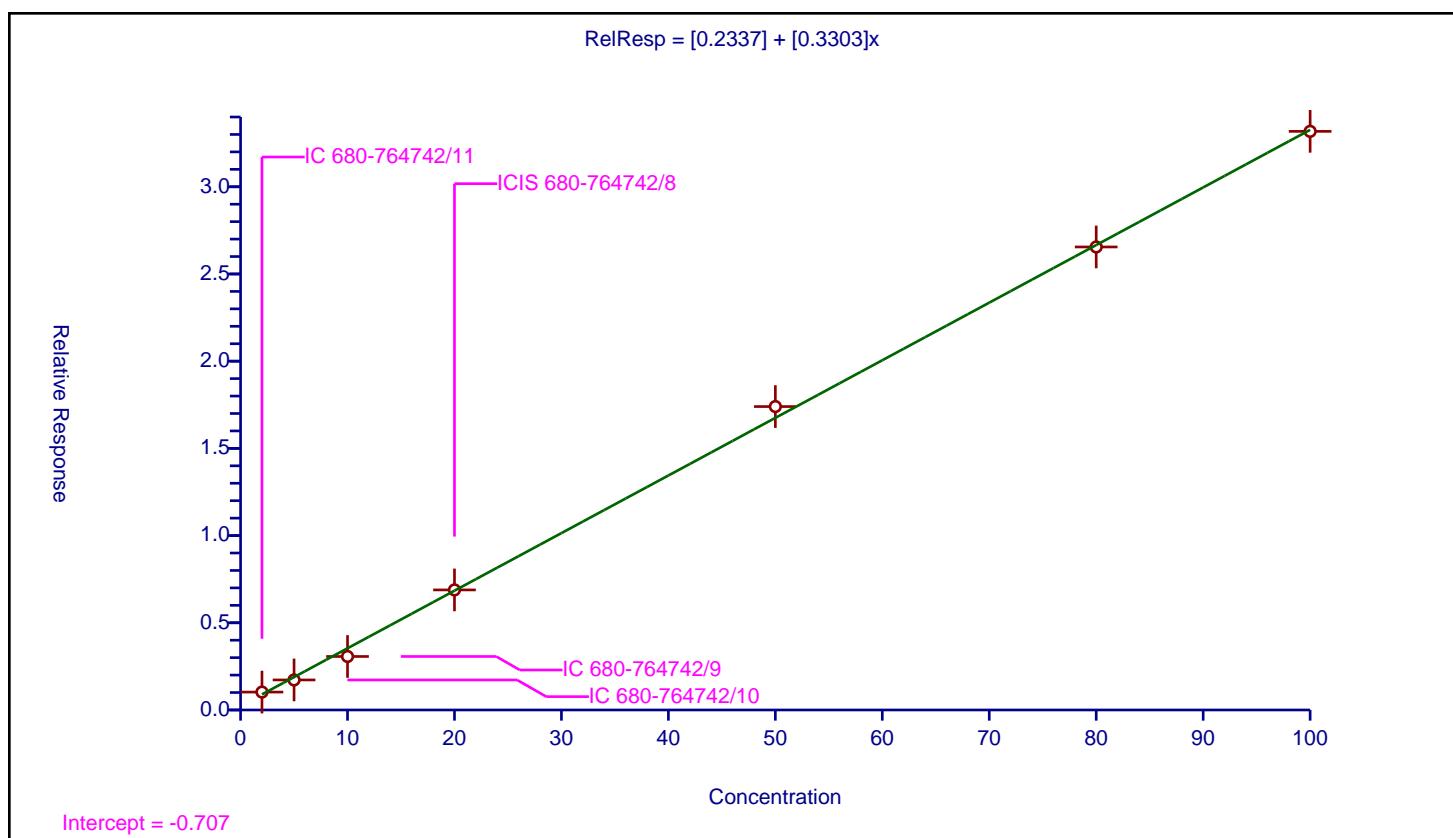
## Calibration

/ 2,2'-Oxybisethanol

**Curve Type:** Linear  
**Weighting:** Conc  
**Origin:** None  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0.2337
Slope:	0.3303
Error Coefficients	
Standard Error:	1830000
Relative Standard Error:	12.0
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-764742/11	2.0	1.02714	50.0	4996789.0	0.51357	Y
2	IC 680-764742/10	5.0	1.722204	50.0	4871171.0	0.344441	Y
3	IC 680-764742/9	10.0	3.068308	50.0	5329257.0	0.306831	Y
4	ICIS 680-764742/8	20.0	6.884961	50.0	4583875.0	0.344248	Y
5	IC 680-764742/7	50.0	17.398115	50.0	4290074.0	0.347962	Y
6	IC 680-764742/6	80.0	26.548493	50.0	4647729.0	0.331856	Y
7	IC 680-764742/5	100.0	33.177983	50.0	4234617.0	0.33178	Y



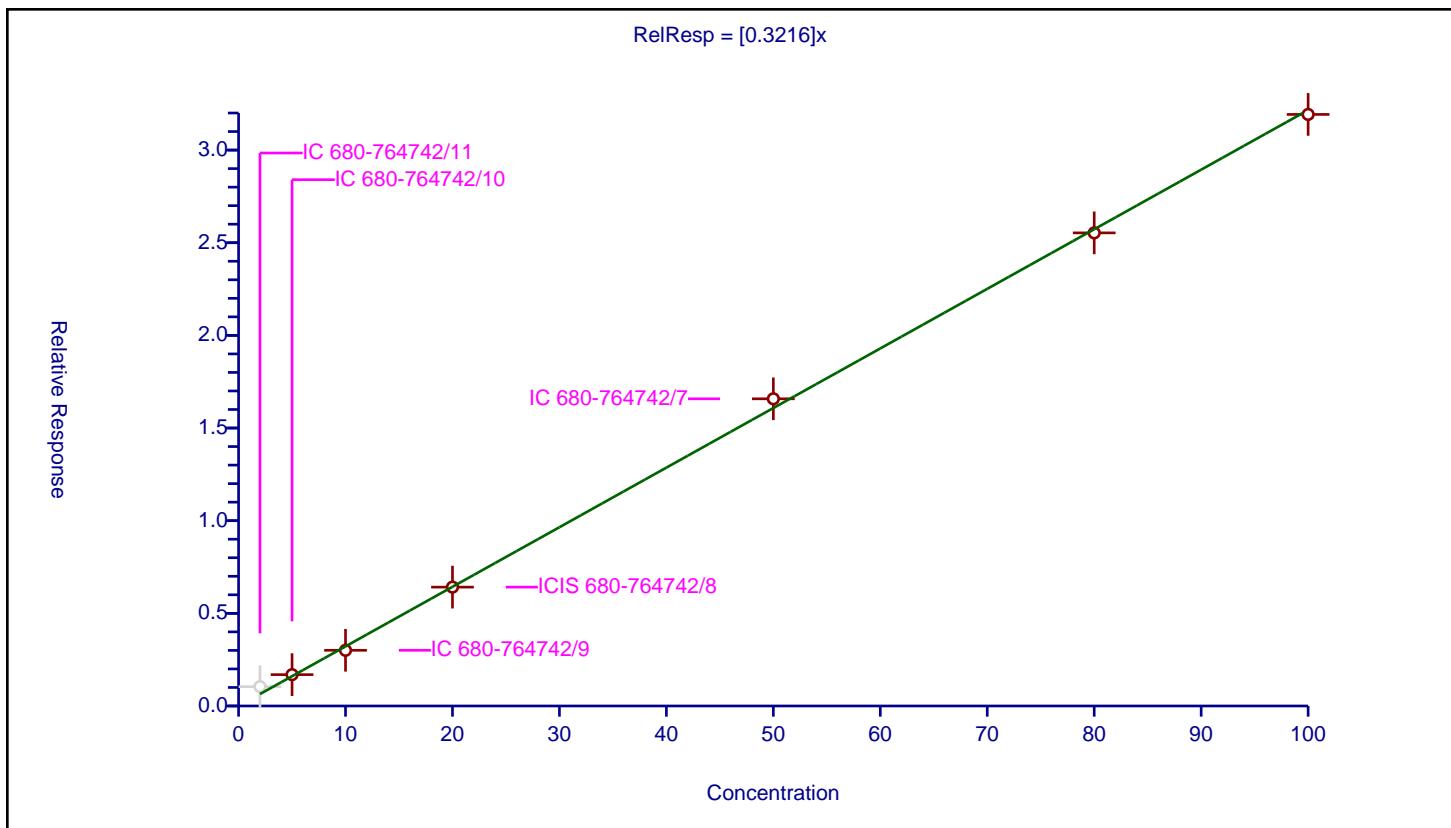
## Calibration

/ Triethylene Glycol

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	0.3216
Error Coefficients	
Standard Error:	1760000
Relative Standard Error:	4.0
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-764742/11	2.0	1.04333	50.0	4996789.0	0.521665	N
2	IC 680-764742/10	5.0	1.691842	50.0	4871171.0	0.338368	Y
3	IC 680-764742/9	10.0	3.004781	50.0	5329257.0	0.300478	Y
4	ICIS 680-764742/8	20.0	6.41454	50.0	4583875.0	0.320727	Y
5	IC 680-764742/7	50.0	16.576952	50.0	4290074.0	0.331539	Y
6	IC 680-764742/6	80.0	25.530964	50.0	4647729.0	0.319137	Y
7	IC 680-764742/5	100.0	31.923359	50.0	4234617.0	0.319234	Y



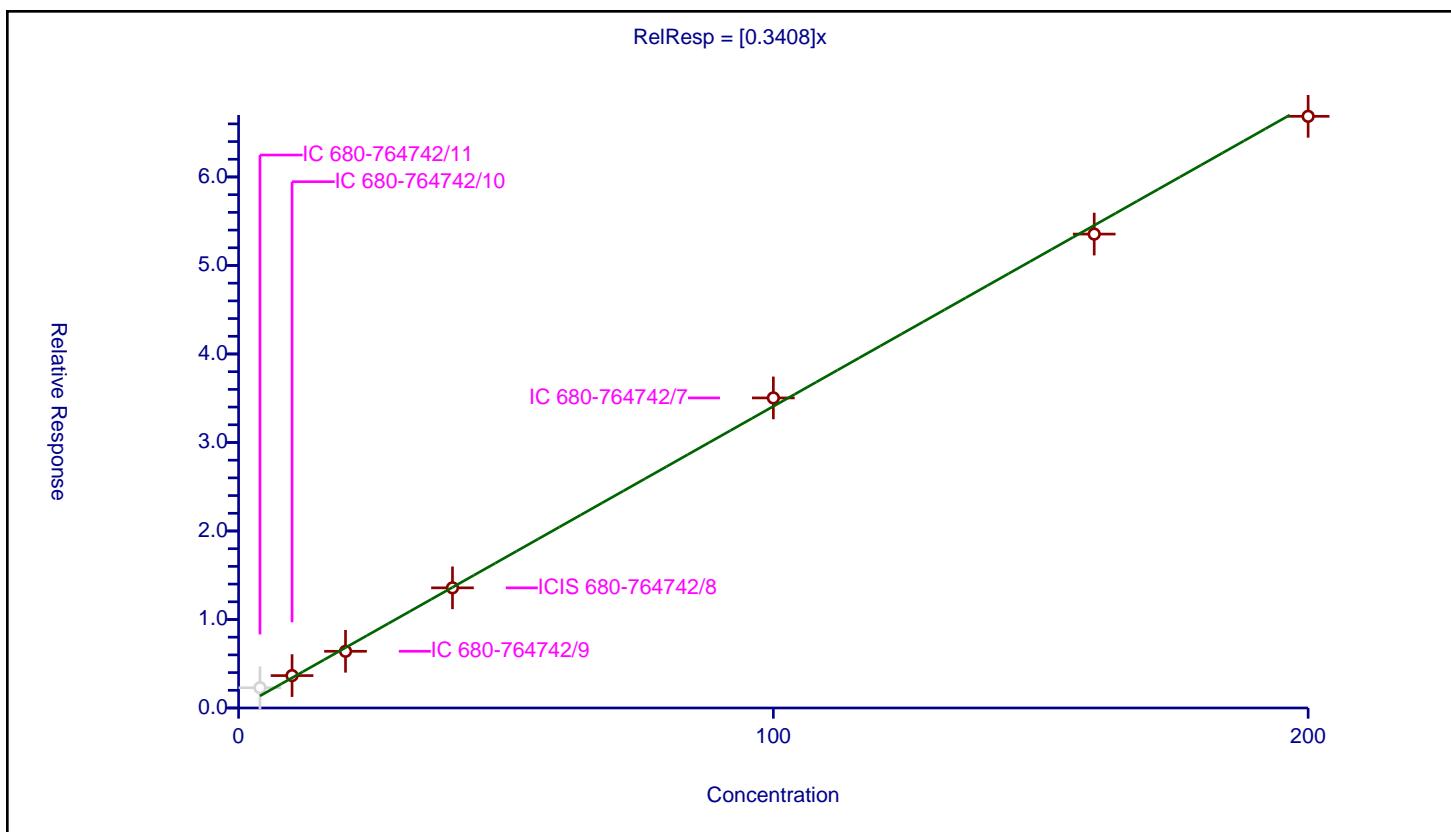
## Calibration

/ Tetraethylene Glycol

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	0.3408
Error Coefficients	
Standard Error:	3690000
Relative Standard Error:	4.6
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-764742/11	4.0	2.28968	50.0	4996789.0	0.57242	N
2	IC 680-764742/10	10.0	3.659777	50.0	4871171.0	0.365978	Y
3	IC 680-764742/9	20.0	6.408398	50.0	5329257.0	0.32042	Y
4	ICIS 680-764742/8	40.0	13.576014	50.0	4583875.0	0.3394	Y
5	IC 680-764742/7	100.0	35.033463	50.0	4290074.0	0.350335	Y
6	IC 680-764742/6	160.0	53.545667	50.0	4647729.0	0.33466	Y
7	IC 680-764742/5	200.0	66.852291	50.0	4234617.0	0.334261	Y



FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 680-764742/12 Calibration Date: 02/23/2023 20:49

Instrument ID: CVGG2 Calib Start Date: 02/23/2023 18:06

GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 02/23/2023 20:25

Lab File ID: GB23012.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin2		0.6287		21.5	20.0	7.7	20.0
4-Hydroxy-4-methyl-2-pentanone	Lin2		0.6237		21.5	20.0	7.7	20.0
2-Butoxyethanol	Lin2		0.7200		22.3	20.0	11.7	20.0
Dipropylene Glycol Methyl Ether	Lin2		0.0491		20.2	20.0	1.2	20.0
Propylene glycol	Qua		0.1654		16.3	20.0	-18.4	20.0
Ethylene glycol	Ave	0.5213	0.4913		18.8	20.0	-5.8	20.0
2-(2-Butoxyethoxy)ethanol	Lin2		0.5671		20.6	20.0	2.8	20.0
2,2'-Oxybisethanol	Lin1		0.3168		18.5	20.0	-7.6	20.0
Triethylene Glycol	Ave	0.3216	0.3248		20.2	20.0	1.0	20.0
Tetraethylene Glycol	Ave	0.3408	0.3504		41.1	40.0	2.8	20.0

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-123973-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 680-764742/12 Calibration Date: 02/23/2023 20:49  
 Instrument ID: CVGG2 Calib Start Date: 02/23/2023 18:06  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 02/23/2023 20:25  
 Lab File ID: GB23012.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.91	2.86	2.98
4-Hydroxy-4-methyl-2-pentanone	3.46	3.41	3.55
2-Butoxyethanol	3.77	3.70	3.85
Dipropylene Glycol Methyl Ether	5.15	5.05	5.26
Propylene glycol	6.26	6.15	6.40
Ethylene glycol	6.54	6.42	6.69
2-(2-Butoxyethoxy)ethanol	8.43	8.26	8.59
2,2'-Oxybisethanol	9.60	9.42	9.80
Triethylene Glycol	10.63	10.42	10.85
Tetraethylene Glycol	11.77	11.54	12.01

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23012.D  
 Lims ID: icv gly  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 23-Feb-2023 20:49:13 ALS Bottle#: 0 Worklist Smp#: 12  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084021-012  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 24-Feb-2023 13:24:57 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1637

First Level Reviewer: SK9U Date: 24-Feb-2023 11:04:43

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy						
2.912	2.920	-0.008	1180335	20.0	21.5	
2 4-Hydroxy-4-methyl-2-pentanone						
3.463	3.477	-0.014	1170903	20.0	21.5	
3 2-Butoxyethanol						
3.767	3.770	-0.003	1351679	20.0	22.3	
* 4 n-Heptyl Alcohol						
4.228	4.222	0.006	4693584	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.146	5.152	-0.006	92106	20.0	20.2	
6 Propylene glycol					M	
6.261	6.271	-0.010	310509	20.0	16.3	M
7 Ethylene glycol					M	
6.542	6.555	-0.013	922349	20.0	18.8	M
8 2-(2-Butoxyethoxy)ethanol						
8.425	8.425	0.000	1064778	20.0	20.6	
9 2,2'-Oxybisethanol						
9.602	9.607	-0.005	594694	20.0	18.5	
10 Triethylene Glycol						
10.629	10.633	-0.004	609814	20.0	20.2	
11 Tetraethylene Glycol					M	
11.766	11.777	-0.011	1315729	40.0	41.1	M

### QC Flag Legend

Processing Flags

## Review Flags

M - Manually Integrated

**Reagents:**

SG\_GlyICV\_00055

Amount Added: 10.00

Units: uL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

Run Reagent

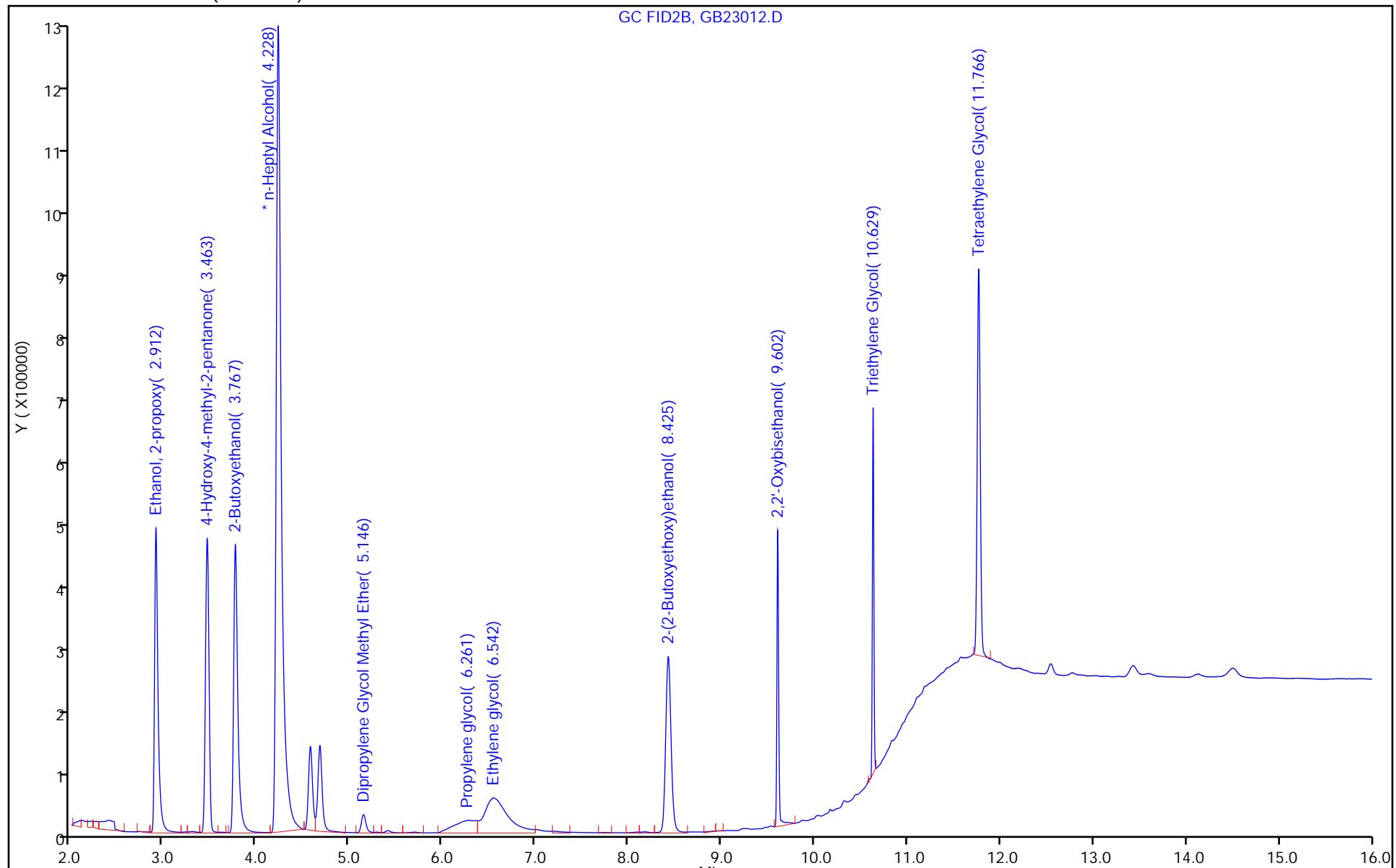
Report Date: 24-Feb-2023 13:24:57

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230223-84021.b\\GB23012.D  
Injection Date: 23-Feb-2023 20:49:13 Instrument ID: CVGG2  
Lims ID: icv\_gly Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 12



## Eurofins Savannah

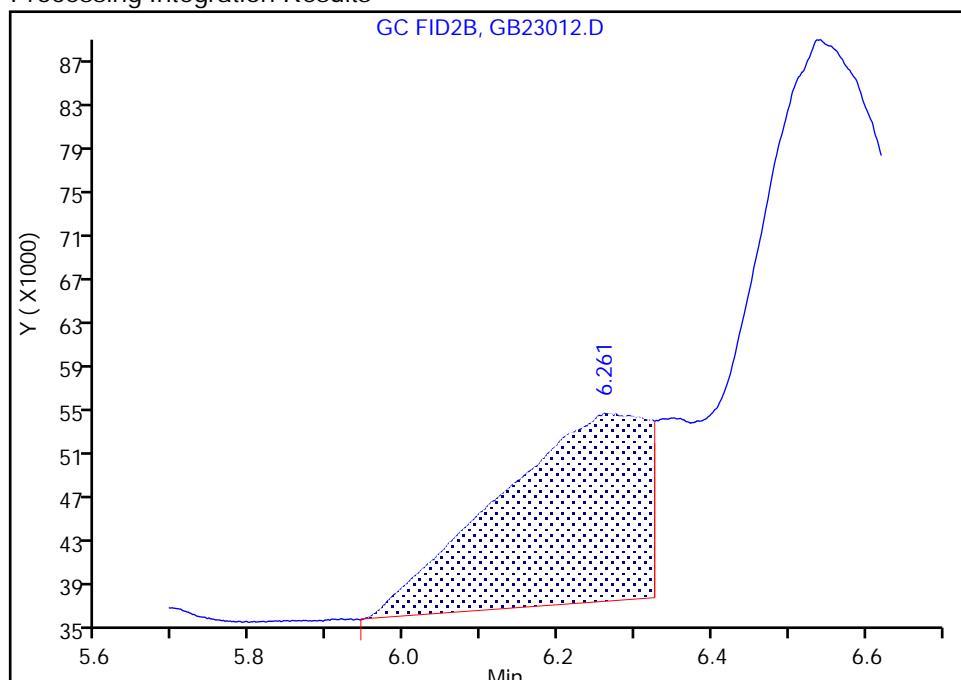
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23012.D  
 Injection Date: 23-Feb-2023 20:49:13 Instrument ID: CVGG2  
 Lims ID: icv gly  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 12  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

**6 Propylene glycol, CAS: 57-55-6**

Signal: 1

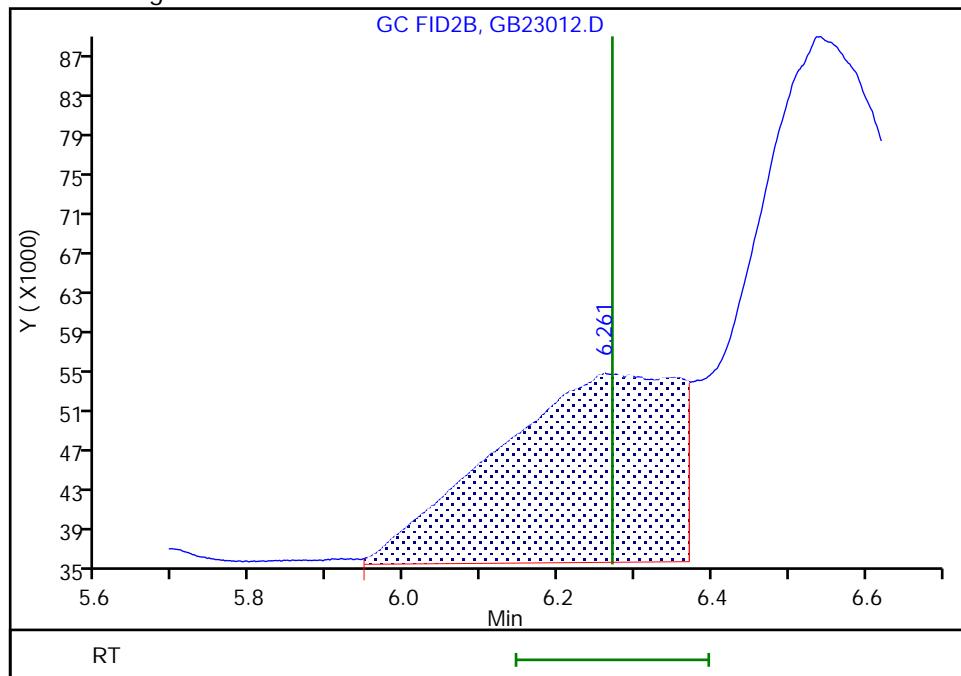
RT: 6.26  
 Area: 230594  
 Amount: 11.910790  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.26  
 Area: 310509  
 Amount: 16.311860  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:14:02

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

## Eurofins Savannah

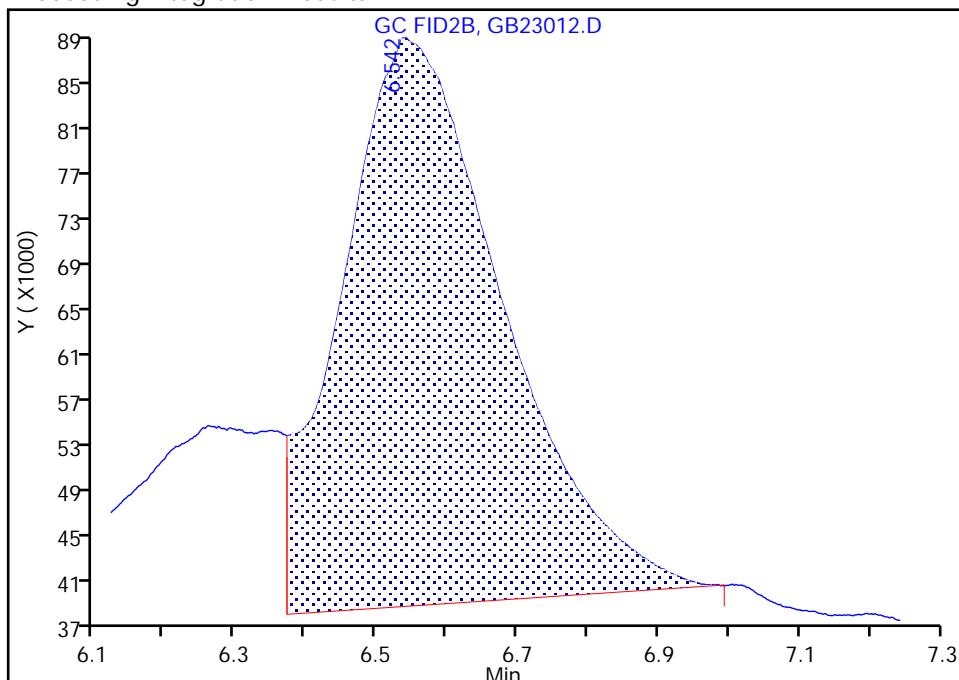
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23012.D  
 Injection Date: 23-Feb-2023 20:49:13 Instrument ID: CVGG2  
 Lims ID: icv gly  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 12  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

## 7 Ethylene glycol, CAS: 107-21-1

Signal: 1

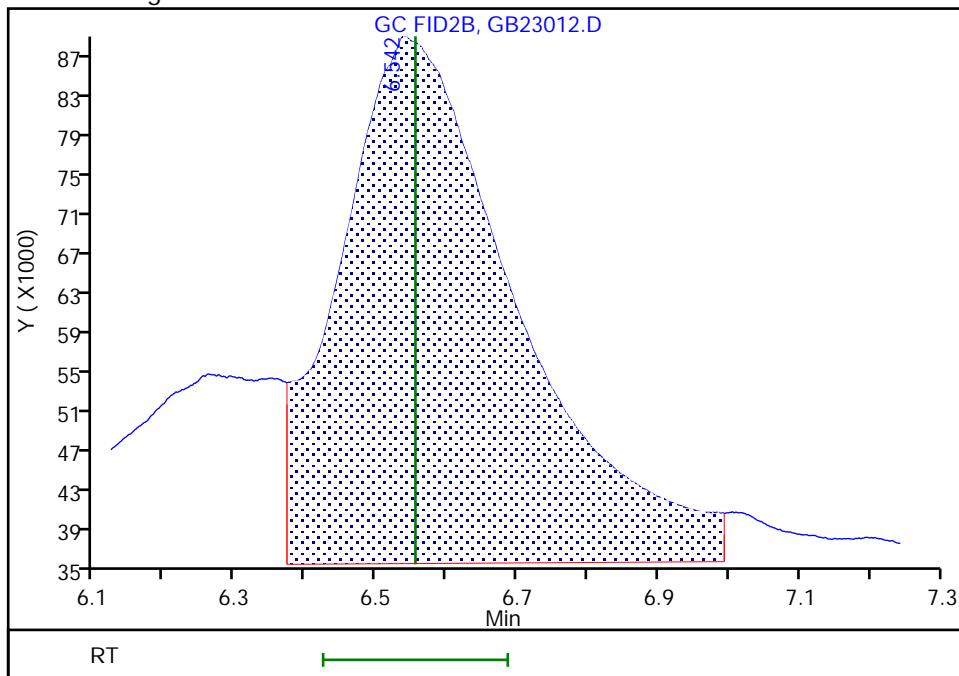
RT: 6.54  
 Area: 786628  
 Amount: 15.544293  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.54  
 Area: 922349  
 Amount: 18.846982  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:13:43

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

## Eurofins Savannah

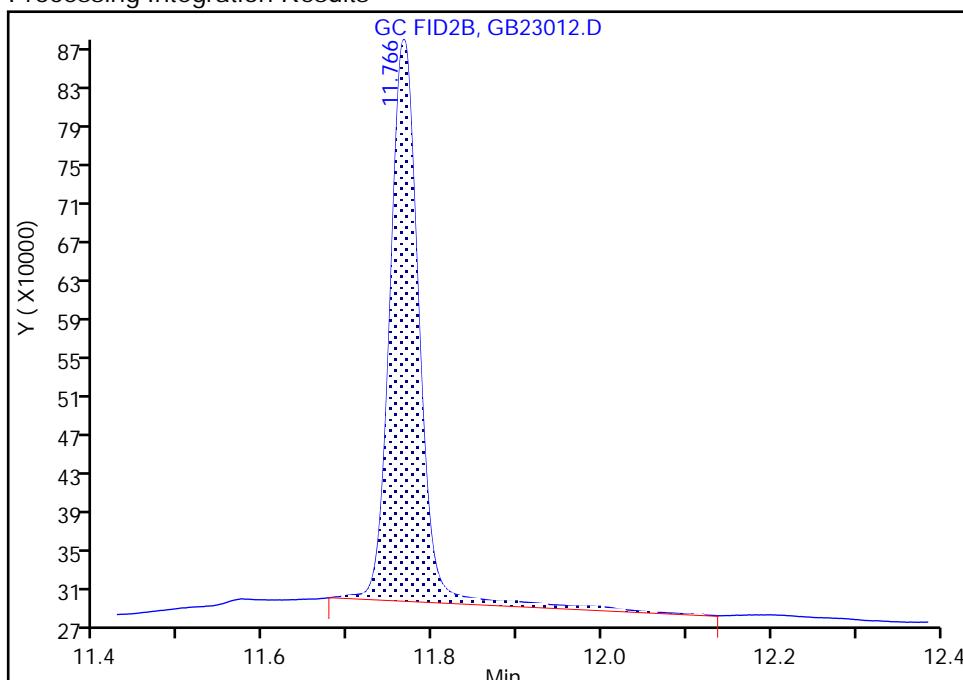
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 Injection Date: 23-Feb-2023 20:49:13 Instrument ID: CVGG2  
 Lims ID: icv gly  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 12  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

## 11 Tetraethylene Glycol, CAS: 112-60-7

Signal: 1

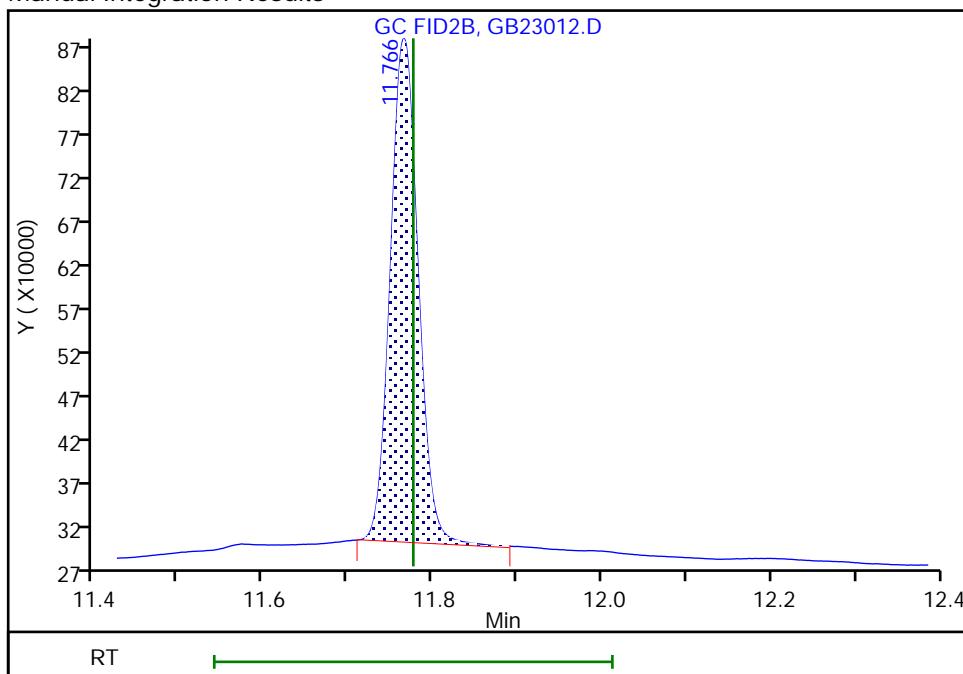
RT: 11.77  
 Area: 1402705  
 Amount: 43.840765  
 Amount Units: ug/ml

## Processing Integration Results



RT: 11.77  
 Area: 1315729  
 Amount: 41.122379  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 24-Feb-2023 11:17:17

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.:

Lab Sample ID: CCVIS 680-765364/5

Calibration Date: 02/28/2023 14:40

Instrument ID: CVGG2

Calib Start Date: 02/23/2023 18:06

GC Column: J&W DB WAX ID: 0.45 (mm)

Calib End Date: 02/23/2023 20:25

Lab File ID: GB28005.D

Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin2		0.6317		21.6	20.0	8.2	20.0
4-Hydroxy-4-methyl-2-pentanone	Lin2		0.6183		21.4	20.0	6.8	20.0
2-Butoxyethanol	Lin2		0.7180		22.3	20.0	11.4	20.0
Dipropylene Glycol Methyl Ether	Lin2		0.0494		20.4	20.0	2.0	20.0
Propylene glycol	Qua		0.1475		14.5	20.0	-27.7*	20.0
Ethylene glycol	Ave	0.5213	0.4247		16.3	20.0	-18.5	20.0
2-(2-Butoxyethoxy)ethanol	Lin2		0.5443		19.7	20.0	-1.6	20.0
2,2'-Oxybisethanol	Lin1		0.2489		14.4	20.0	-28.2*	20.0
Triethylene Glycol	Ave	0.3216	0.2267		14.1	20.0	-29.5*	20.0
Tetraethylene Glycol	Ave	0.3408	0.2317		27.2	40.0	-32.0*	20.0

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-123973-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 680-765364/5 Calibration Date: 02/28/2023 14:40  
 Instrument ID: CVGG2 Calib Start Date: 02/23/2023 18:06  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 02/23/2023 20:25  
 Lab File ID: GB28005.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.91	2.85	2.97
4-Hydroxy-4-methyl-2-pentanone	3.47	3.40	3.54
2-Butoxyethanol	3.76	3.69	3.84
Dipropylene Glycol Methyl Ether	5.14	5.04	5.25
Propylene glycol	6.36	6.23	6.49
Ethylene glycol	6.56	6.43	6.70
2-(2-Butoxyethoxy)ethanol	8.42	8.25	8.59
2,2'-Oxybisethanol	9.61	9.41	9.80
Triethylene Glycol	10.63	10.42	10.84
Tetraethylene Glycol	11.77	11.53	12.01

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28005.D  
 Lims ID: ccvis g4  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 28-Feb-2023 14:40:37 ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084108-005  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:11 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1666

First Level Reviewer: SK9U Date: 28-Feb-2023 17:56:07

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy						
2.912	2.912	0.000	1073718	20.0	21.6	
2 4-Hydroxy-4-methyl-2-pentanone						
3.466	3.466	0.000	1050978	20.0	21.4	
3 2-Butoxyethanol						
3.762	3.762	0.000	1220410	20.0	22.3	
* 4 n-Heptyl Alcohol						
4.218	4.218	0.000	4249128	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.144	5.144	0.000	83950	20.0	20.4	
6 Propylene glycol					M	
6.361	6.361	0.000	250646	20.0	14.5	M
7 Ethylene glycol					M	
6.564	6.564	0.000	721898	20.0	16.3	M
8 2-(2-Butoxyethoxy)ethanol						
8.419	8.419	0.000	925121	20.0	19.7	
9 2,2'-Oxybisethanol						
9.605	9.605	0.000	423096	20.0	14.4	
10 Triethylene Glycol						
10.631	10.631	0.000	385265	20.0	14.1	
11 Tetraethylene Glycol						
11.770	11.770	0.000	787478	40.0	27.2	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

**Reagents:**

SG\_Gly\_CAL\_00048

Amount Added: 10.00

Units: uL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

Run Reagent

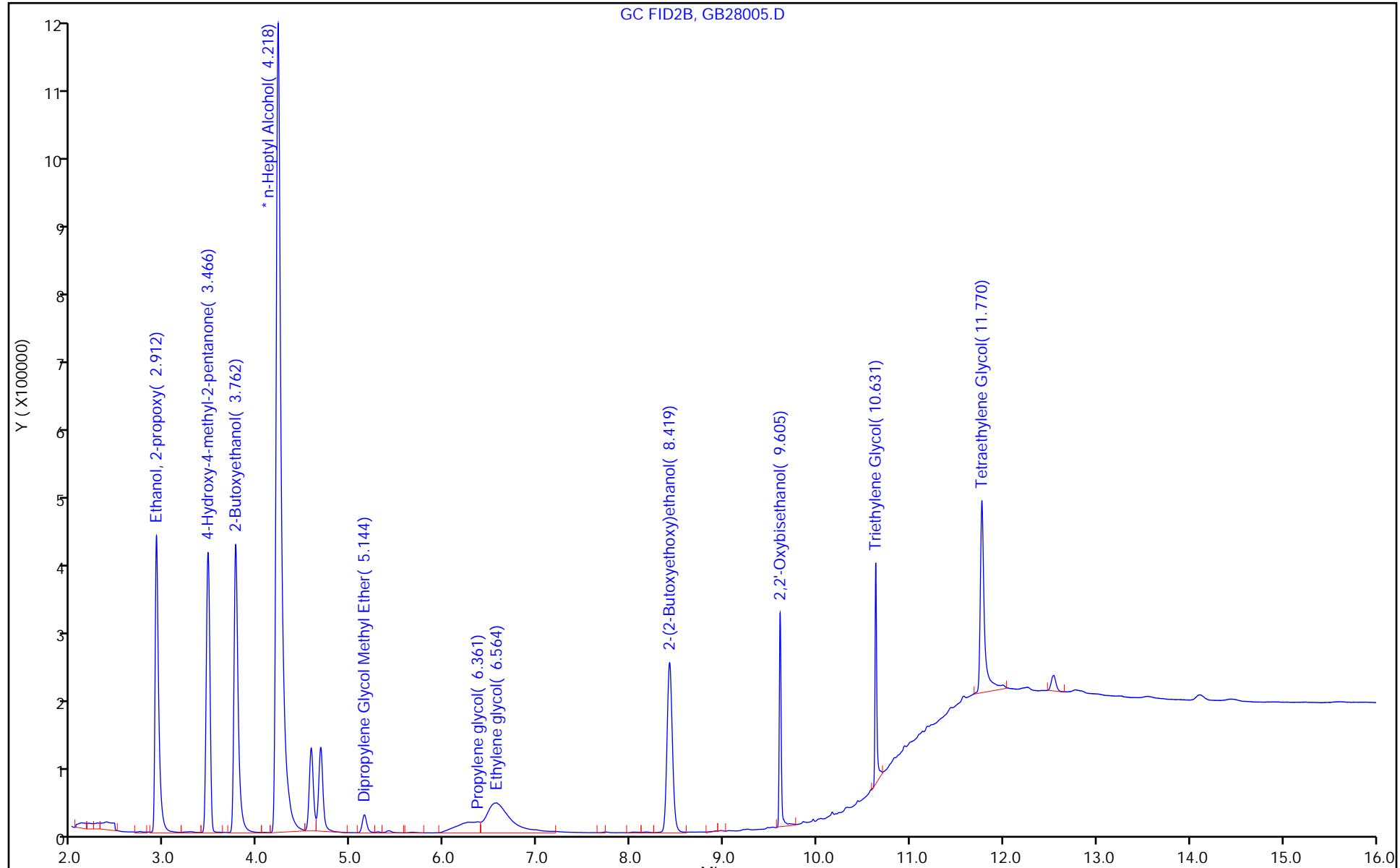
Report Date: 01-Mar-2023 15:19:11

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28005.D  
Injection Date: 28-Feb-2023 14:40:37 Instrument ID: CVGG2  
Lims ID: ccvis g4 Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 5



## Eurofins Savannah

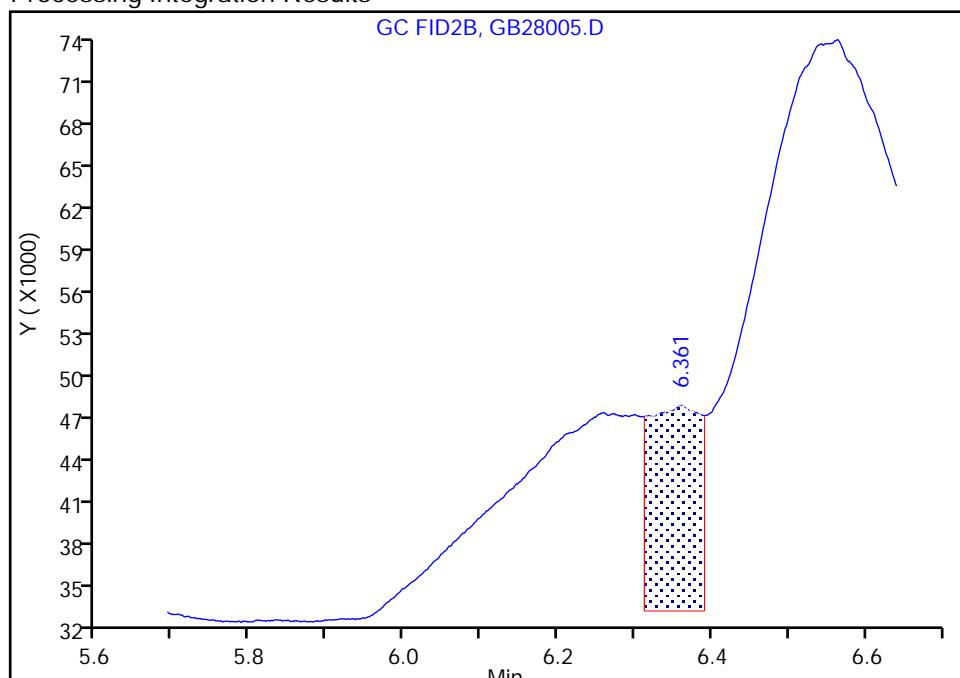
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28005.D  
 Injection Date: 28-Feb-2023 14:40:37 Instrument ID: CVGG2  
 Lims ID: ccvis g4  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

**6 Propylene glycol, CAS: 57-55-6**

Signal: 1

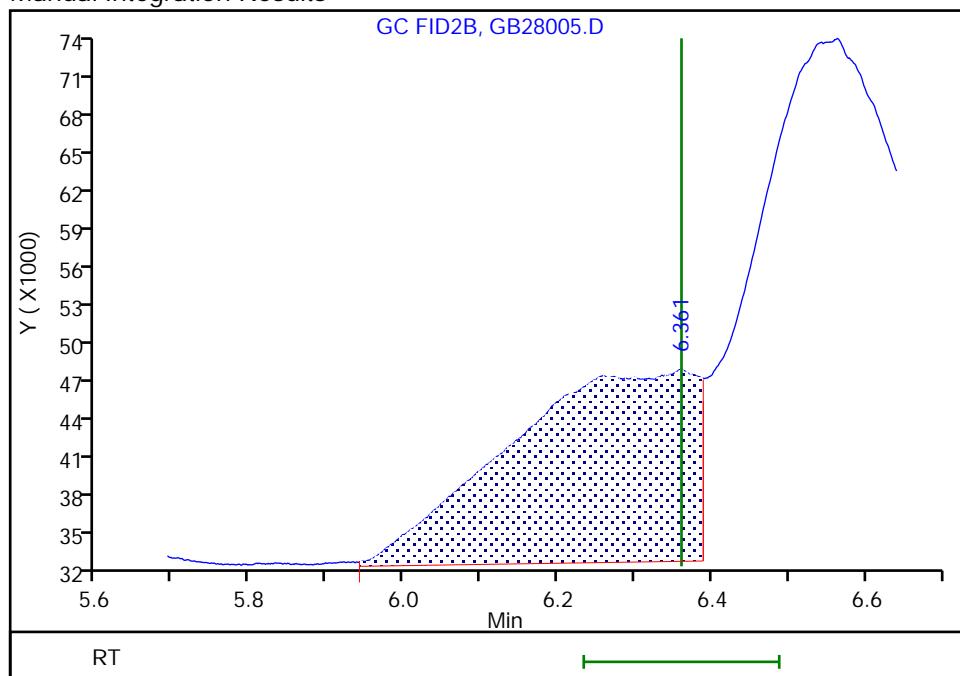
RT: 6.36  
 Area: 65211  
 Amount: 3.138224  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.36  
 Area: 250646  
 Amount: 14.460578  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 01-Mar-2023 15:13:24

Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

## Eurofins Savannah

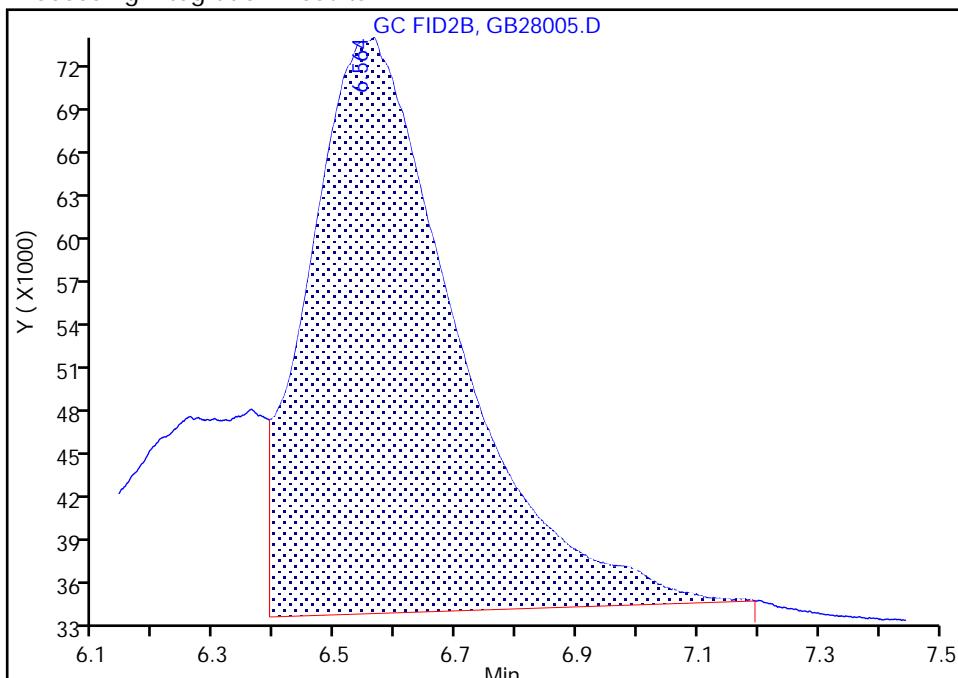
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28005.D  
 Injection Date: 28-Feb-2023 14:40:37 Instrument ID: CVGG2  
 Lims ID: ccvis g4  
 Client ID:  
 Operator ID: ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
 Column: J&W DB WAX ( 0.45 mm) Detector: GC FID2B

### 7 Ethylene glycol, CAS: 107-21-1

Signal: 1

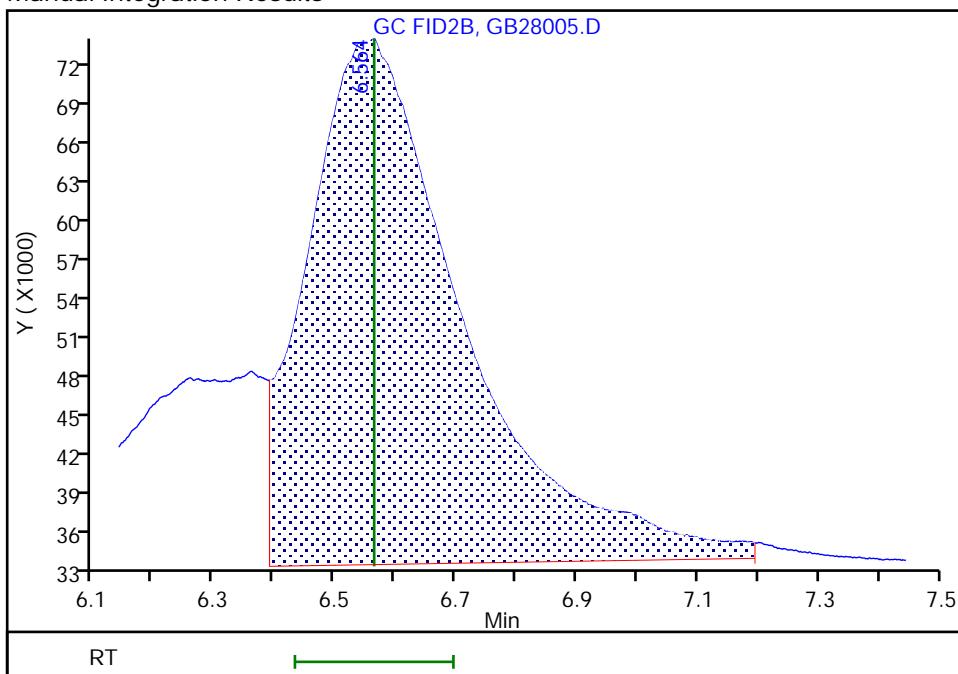
RT: 6.56  
 Area: 677508  
 Amount: 15.292051  
 Amount Units: ug/ml

## Processing Integration Results



RT: 6.56  
 Area: 721898  
 Amount: 16.293979  
 Amount Units: ug/ml

## Manual Integration Results



Reviewer: SK9U, 01-Mar-2023 15:13:24

Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCV 680-765364/26 Calibration Date: 02/28/2023 22:53

Instrument ID: CVGG2 Calib Start Date: 02/23/2023 18:06

GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 02/23/2023 20:25

Lab File ID: GB28026.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin2		0.6708		23.1	20.0	15.3	20.0
4-Hydroxy-4-methyl-2-pentanone	Lin2		0.6632		23.0	20.0	14.9	20.0
2-Butoxyethanol	Lin2		0.7526		23.4	20.0	17.1	20.0
Dipropylene Glycol Methyl Ether	Lin2		0.0545		22.6	20.0	13.0	20.0
Propylene glycol	Qua		0.0279		2.05	20.0	-89.7*	20.0
Ethylene glycol	Ave	0.5213	0.4440		17.0	20.0	-14.8	20.0
2-(2-Butoxyethoxy)ethanol	Lin2		0.6035		22.0	20.0	9.8	20.0
2,2'-Oxybisethanol	Lin1		0.1447		8.05	20.0	-59.7*	20.0
Triethylene Glycol	Ave	0.3216	0.0894		5.56	20.0	-72.2*	20.0
Tetraethylene Glycol	Ave	0.3408	0.0442		5.19	40.0	-87.0*	20.0

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-123973-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 680-765364/26 Calibration Date: 02/28/2023 22:53  
 Instrument ID: CVGG2 Calib Start Date: 02/23/2023 18:06  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 02/23/2023 20:25  
 Lab File ID: GB28026.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.91	2.86	2.97
4-Hydroxy-4-methyl-2-pentanone	3.47	3.41	3.54
2-Butoxyethanol	3.76	3.69	3.84
Dipropylene Glycol Methyl Ether	5.15	5.05	5.25
Propylene glycol	6.35	6.23	6.48
Ethylene glycol	6.57	6.44	6.70
2-(2-Butoxyethoxy)ethanol	8.42	8.25	8.58
2,2'-Oxybisethanol	9.61	9.42	9.80
Triethylene Glycol	10.64	10.42	10.85
Tetraethylene Glycol	11.79	11.56	12.03

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28026.D  
 Lims ID: ccv g4  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 28-Feb-2023 22:53:05 ALS Bottle#: 0 Worklist Smp#: 26  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084108-026  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:24 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1666

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
-----------	---------------	---------------	----------	---------------	-----------------	-------

1 Ethanol, 2-propoxy						
2.913	2.913	0.000	1480034	20.0	23.1	
2 4-Hydroxy-4-methyl-2-pentanone						
3.474	3.474	0.000	1463348	20.0	23.0	
3 2-Butoxyethanol						
3.760	3.760	0.000	1660528	20.0	23.4	
* 4 n-Heptyl Alcohol						
4.203	4.203	0.000	5516164	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.149	5.149	0.000	120244	20.0	22.6	
6 Propylene glycol						
6.352	6.352	0.000	61659	20.0	2.05	
7 Ethylene glycol						
6.572	6.572	0.000	979569	20.0	17.0	
8 2-(2-Butoxyethoxy)ethanol						
8.415	8.415	0.000	1331564	20.0	22.0	
9 2,2'-Oxybisethanol						
9.607	9.607	0.000	319229	20.0	8.05	
10 Triethylene Glycol						
10.636	10.636	0.000	197195	20.0	5.56	
11 Tetraethylene Glycol						
11.791	11.791	0.000	194985	40.0	5.19	

**Reagents:**

SG_Gly_CAL_00048	Amount Added: 10.00	Units: uL	
SG,GLY,ISTD_00106	Amount Added: 10.00	Units: uL	Run Reagent

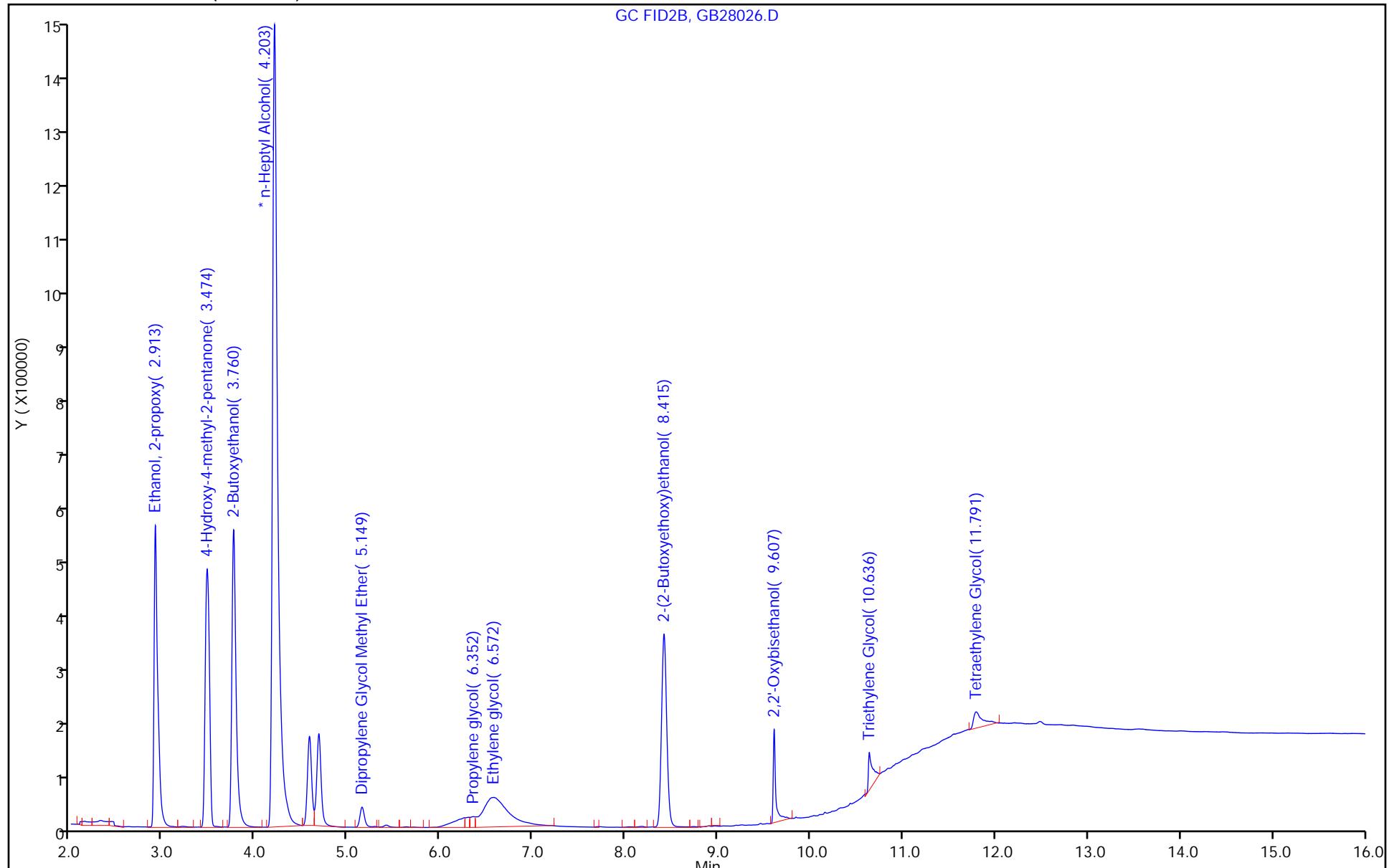
Report Date: 01-Mar-2023 15:19:24

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28026.D  
Injection Date: 28-Feb-2023 22:53:05 Instrument ID: CVGG2  
Lims ID: ccv g4 Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 26



FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCV 680-765364/37 Calibration Date: 03/01/2023 03:10

Instrument ID: CVGG2 Calib Start Date: 02/23/2023 18:06

GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 02/23/2023 20:25

Lab File ID: GB28037.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin2		0.6816		23.4	20.0	17.2	20.0
4-Hydroxy-4-methyl-2-pentanone	Lin2		0.6747		23.4	20.0	16.9	20.0
2-Butoxyethanol	Lin2		0.7664		23.9	20.0	19.3	20.0
Dipropylene Glycol Methyl Ether	Lin2		0.0569		23.6	20.0	18.1	20.0
Propylene glycol	Qua		0.0456		3.89	20.0	-80.5*	20.0
Ethylene glycol	Ave	0.5213	0.5090		19.5	20.0	-2.4	20.0
2-(2-Butoxyethoxy)ethanol	Lin2		0.6192		22.6	20.0	12.9	20.0
2,2'-Oxybisethanol	Lin1		0.1879		10.7	20.0	-46.7*	20.0
Triethylene Glycol	Ave	0.3216	0.0737		4.59	20.0	-77.1*	20.0
Tetraethylene Glycol	Ave	0.3408	0.0324		10.0	40.0	-90.5*	20.0

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-123973-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 680-765364/37 Calibration Date: 03/01/2023 03:10  
 Instrument ID: CVGG2 Calib Start Date: 02/23/2023 18:06  
 GC Column: J&W DB WAX ID: 0.45 (mm) Calib End Date: 02/23/2023 20:25  
 Lab File ID: GB28037.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.92	2.86	2.98
4-Hydroxy-4-methyl-2-pentanone	3.49	3.42	3.56
2-Butoxyethanol	3.76	3.69	3.84
Dipropylene Glycol Methyl Ether	5.15	5.05	5.25
Propylene glycol	6.35	6.22	6.48
Ethylene glycol	6.58	6.44	6.71
2-(2-Butoxyethoxy)ethanol	8.41	8.24	8.58
2,2'-Oxybisethanol	9.61	9.41	9.80
Triethylene Glycol	10.64	10.42	10.85
Tetraethylene Glycol	11.79	11.55	12.02

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28037.D  
 Lims ID: ccv g4  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 01-Mar-2023 03:10:48 ALS Bottle#: 0 Worklist Smp#: 37  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084108-037  
 Operator ID: Instrument ID: CVGG2  
 Sublist: chrom-8015\_GLY\_VGG\*sub2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:23 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1666

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy						
2.922	2.922	0.000	1562888	20.0	23.4	
2 4-Hydroxy-4-methyl-2-pentanone						
3.490	3.490	0.000	1547000	20.0	23.4	
3 2-Butoxyethanol						
3.764	3.764	0.000	1757379	20.0	23.9	
* 4 n-Heptyl Alcohol						
4.196	4.196	0.000	5732434	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.150	5.150	0.000	130389	20.0	23.6	
6 Propylene glycol						
6.348	6.348	0.000	104584	20.0	3.89	
7 Ethylene glycol						
6.575	6.575	0.000	1167166	20.0	19.5	
8 2-(2-Butoxyethoxy)ethanol						
8.409	8.409	0.000	1419717	20.0	22.6	
9 2,2'-Oxybisethanol						
9.605	9.605	0.000	430782	20.0	10.7	
10 Triethylene Glycol						
10.636	10.636	0.000	169075	20.0	4.59	
11 Tetraethylene Glycol						
11.786	11.786	0.000	148377	40.0	3.80	

**Reagents:**

SG_Gly_CAL_00048	Amount Added: 10.00	Units: uL	
SG,GLY,ISTD,00106	Amount Added: 10.00	Units: uL	Run Reagent

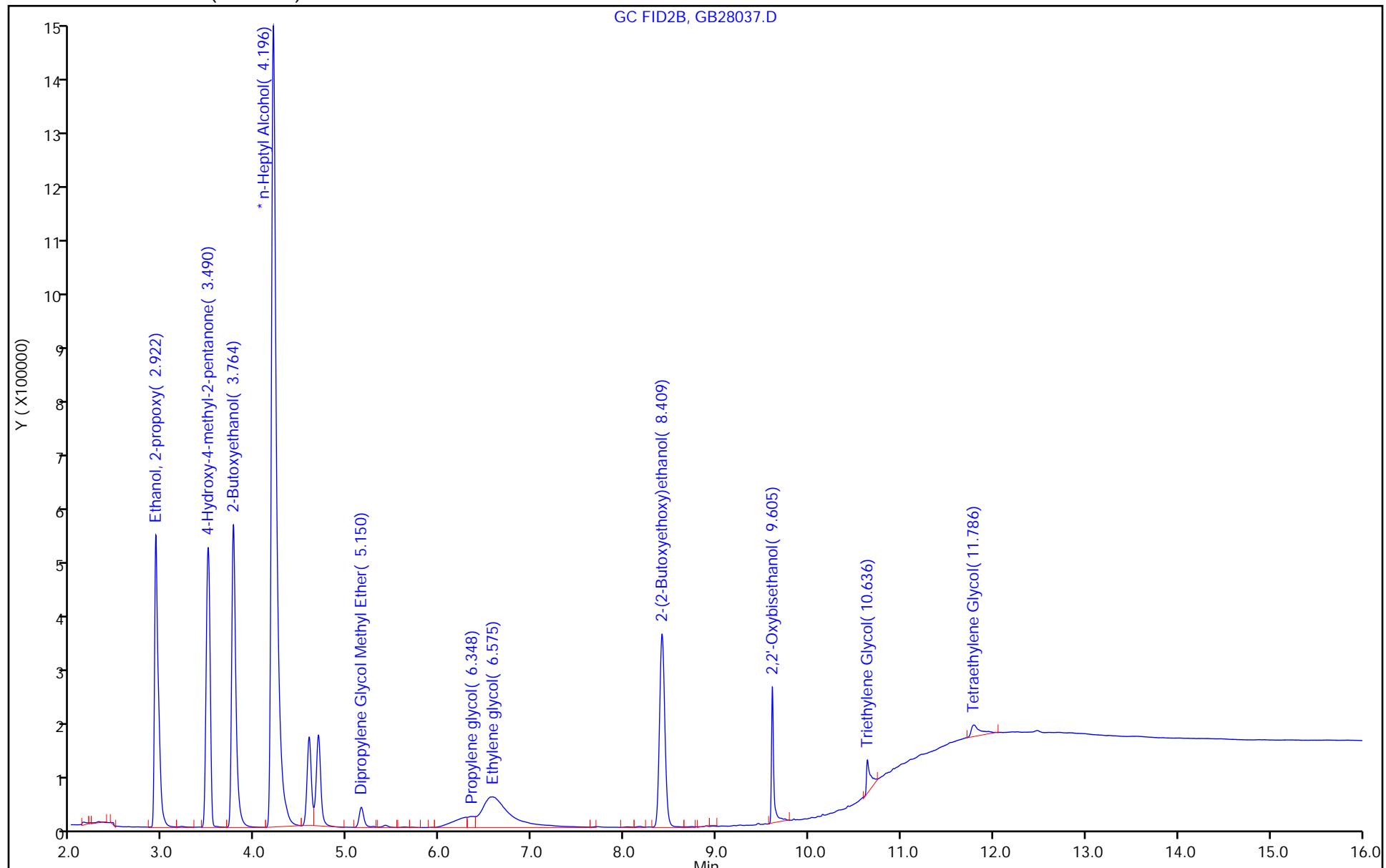
Report Date: 01-Mar-2023 15:19:23

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28037.D  
Injection Date: 01-Mar-2023 03:10:48 Instrument ID: CVGG2  
Lims ID: ccv g4 Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 37



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-123973-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 680-765364/10  
Matrix: Water Lab File ID: GB28010.D  
Analysis Method: 8015C GLY Date Collected: \_\_\_\_\_  
Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
Sample wt/vol: 1 (mL) Date Analyzed: 02/28/2023 16:37  
Con. Extract Vol.: 1 (mL) Dilution Factor: 1  
Injection Volume: 1 (uL) GC Column: J&W DB WAX ID: 0.45 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_  
Analysis Batch No.: 765364 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	3.0	1.1

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28010.D  
 Lims ID: mb  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 28-Feb-2023 16:37:58      ALS Bottle#: 0      Worklist Smp#: 10  
 Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
 Sample Info: 680-0084108-010  
 Operator ID:      Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:12      Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm)      Det: GC FID2B  
 Process Host: CTX1666

First Level Reviewer: SK9U      Date: 01-Mar-2023 15:15:18

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	------------------	--------------------	-------

\* 4 n-Heptyl Alcohol  
 4.209    4.219    -0.010    5112288    50.0    50.0  
 6 Propylene glycol  
 6.363    6.363    0.000    2721                          7  
 LOD = 0.5000

### QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

### Reagents:

SG\_GLY\_ITSD\_00106      Amount Added: 10.00      Units: uL      Run Reagent

Report Date: 01-Mar-2023 15:19:20

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28010.D

Injection Date: 28-Feb-2023 16:37:58

Instrument ID: CVGG2

Operator ID:

Lims ID: mb

Worklist Smp#: 10

Client ID:

Injection Vol: 1.0 ul

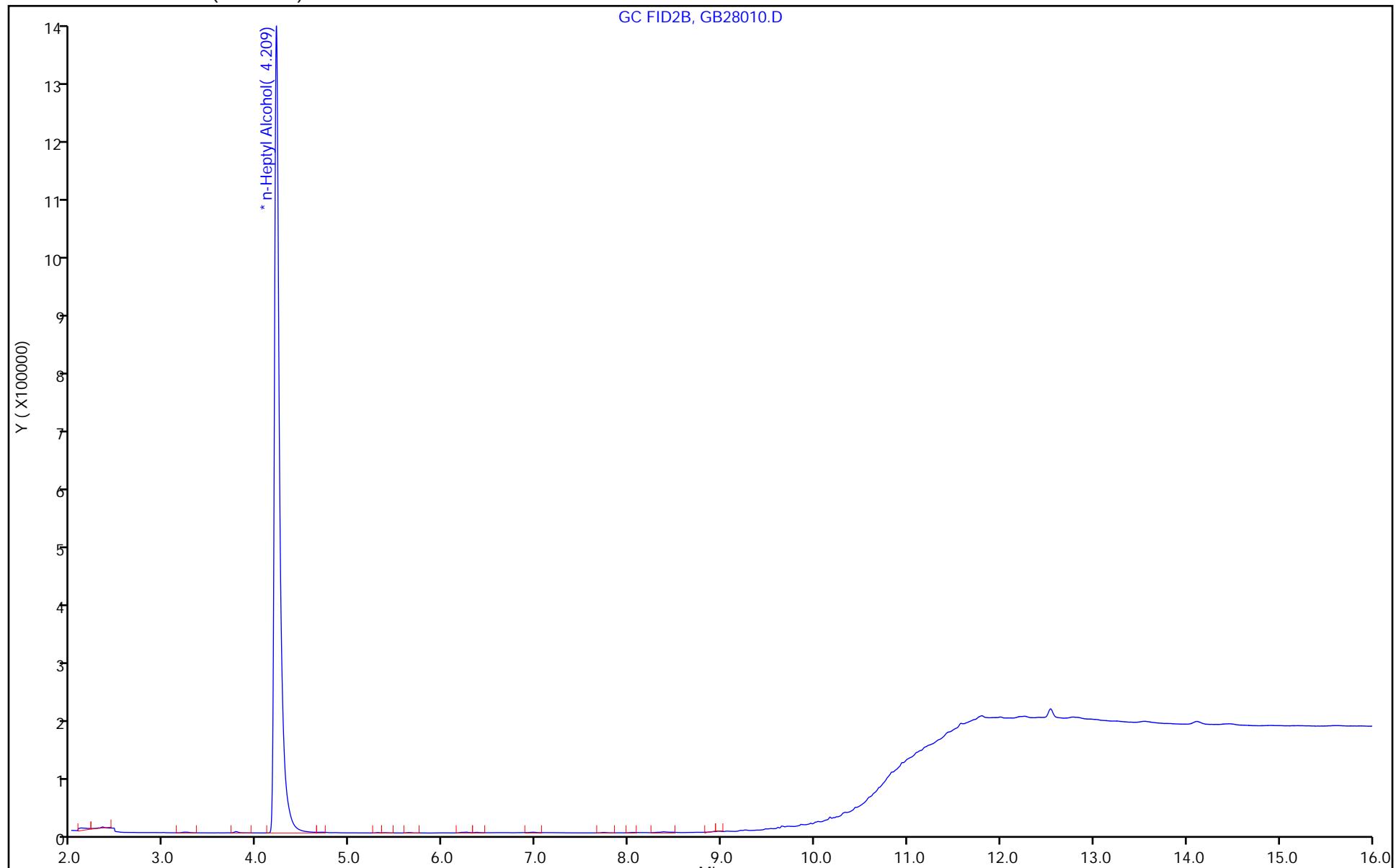
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 8015\_GLY\_VGG

Limit Group: 8015C\_DAI

Column: J&W DB WAX ( 0.45 mm)



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Client Sample ID: \_\_\_\_\_

Lab Sample ID: LCS 680-765364/6

Matrix: Water

Lab File ID: GB28006.D

Analysis Method: 8015C GLY

Date Collected: \_\_\_\_\_

Extraction Method: \_\_\_\_\_

Date Extracted: \_\_\_\_\_

Sample wt/vol: 1 (mL)

Date Analyzed: 02/28/2023 15:04

Con. Extract Vol.: 1 (mL)

Dilution Factor: 1

Injection Volume: 1 (uL)

GC Column: J&W DB WAX ID: 0.45 (mm)

% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_

GPC Cleanup: (Y/N) N

Cleanup Factor: \_\_\_\_\_

Analysis Batch No.: 765364

Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	22.7		5.0	3.0	1.1

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28006.D  
 Lims ID: lcs  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 28-Feb-2023 15:04:02 ALS Bottle#: 0 Worklist Smp#: 6  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084108-006  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:12 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1666

First Level Reviewer: SK9U Date: 01-Mar-2023 15:13:58

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 Ethanol, 2-propoxy						
2.910	2.910	0.000	1287199	20.0	24.4	
2 4-Hydroxy-4-methyl-2-pentanone						
3.463	3.463	0.000	1249575	20.0	23.9	
3 2-Butoxyethanol						
3.761	3.761	0.000	1467149	20.0	25.2	
* 4 n-Heptyl Alcohol						
4.219	4.219	0.000	4538995	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.142	5.142	0.000	98375	20.0	22.5	
6 Propylene glycol					M	
6.363	6.363	0.000	313849	20.0	17.1	M
7 Ethylene glycol					M	
6.546	6.546	0.000	951727	20.0	20.1	M
8 2-(2-Butoxyethoxy)ethanol						
8.419	8.419	0.000	1130881	20.0	22.7	
9 2,2'-Oxybisethanol						
9.605	9.605	0.000	582959	20.0	18.7	
10 Triethylene Glycol						
10.631	10.631	0.000	548633	20.0	18.8	
11 Tetraethylene Glycol						
11.769	11.769	0.000	1165251	40.0	37.7	

### QC Flag Legend

Processing Flags

## Review Flags

M - Manually Integrated

**Reagents:**

SG\_Gly\_CAL\_00048

Amount Added: 0.01

Units: mL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

Run Reagent

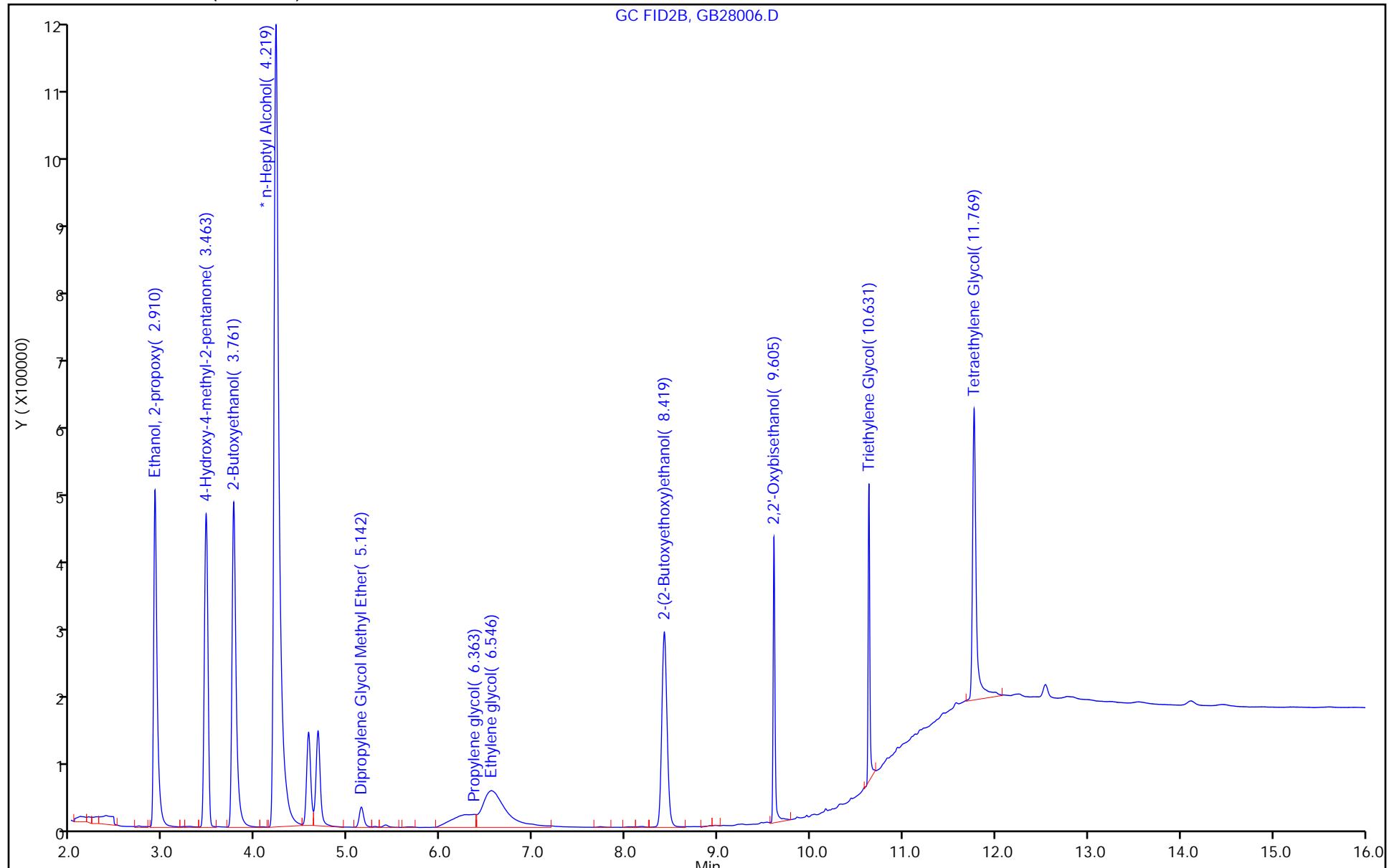
Report Date: 01-Mar-2023 15:19:12

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28006.D  
Injection Date: 28-Feb-2023 15:04:02 Instrument ID: CVGG2  
Lims ID: lcs Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 6



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-123973-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 680-765364/7  
Matrix: Water Lab File ID: GB28007.D  
Analysis Method: 8015C GLY Date Collected: \_\_\_\_\_  
Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
Sample wt/vol: 1 (mL) Date Analyzed: 02/28/2023 15:27  
Con. Extract Vol.: 1 (mL) Dilution Factor: 1  
Injection Volume: 1 (uL) GC Column: J&W DB WAX ID: 0.45 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_  
Analysis Batch No.: 765364 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	20.0		5.0	3.0	1.1

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28007.D  
 Lims ID: lcSD  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 28-Feb-2023 15:27:32 ALS Bottle#: 0 Worklist Smp#: 7  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084108-007  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:12 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1666

First Level Reviewer: SK9U Date: 01-Mar-2023 15:14:28

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
-----------	---------------	---------------	----------	---------------	-----------------	-------

1 Ethanol, 2-propoxy						
2.912	2.910	0.002	1425634	20.0	23.1	
2 4-Hydroxy-4-methyl-2-pentanone						
3.470	3.463	0.007	1378434	20.0	22.5	
3 2-Butoxyethanol						
3.761	3.761	0.000	1633140	20.0	24.0	
* 4 n-Heptyl Alcohol						
4.211	4.219	-0.008	5307196	50.0	50.0	
5 Dipropylene Glycol Methyl Ether						
5.146	5.142	0.004	106451	20.0	20.7	
6 Propylene glycol					M	
6.356	6.363	-0.007	265866	20.0	12.2	M
7 Ethylene glycol					M	
6.548	6.546	0.002	829412	20.0	15.0	M
8 2-(2-Butoxyethoxy)ethanol						
8.418	8.419	-0.001	1173641	20.0	20.0	
9 2,2'-Oxybisethanol						
9.604	9.605	-0.001	491334	20.0	13.3	
10 Triethylene Glycol						
10.631	10.631	0.000	479135	20.0	14.0	
11 Tetraethylene Glycol						
11.769	11.769	0.000	1017488	40.0	28.1	

### QC Flag Legend

Processing Flags

## Review Flags

M - Manually Integrated

**Reagents:**

SG\_Gly\_CAL\_00048

Amount Added: 0.01

Units: mL

SG,GLY,ISTD,00106

Amount Added: 10.00

Units: uL

Run Reagent

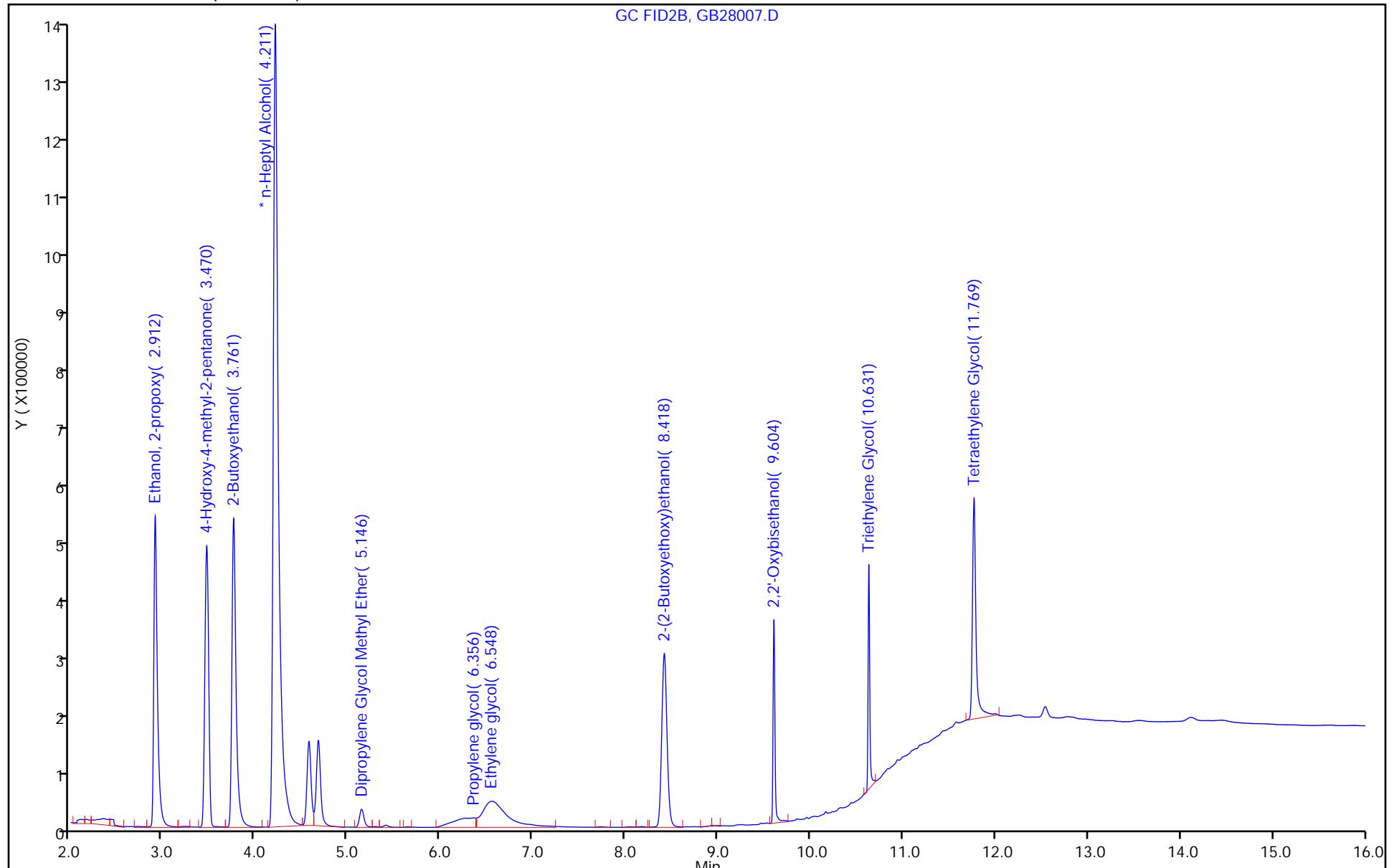
Report Date: 01-Mar-2023 15:19:13

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28007.D  
Injection Date: 28-Feb-2023 15:27:32 Instrument ID: CVGG2  
Lims ID: lc3d Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 7



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Client Sample ID: AF-RHMW03-WGN01LF-2302W3  
MS

Lab Sample ID: 580-123973-1 MS

Matrix: Water

Lab File ID: GB28032.D

Analysis Method: 8015C GLY

Date Collected: 02/23/2023 12:15

Extraction Method: \_\_\_\_\_

Date Extracted: \_\_\_\_\_

Sample wt/vol: 1 (mL)

Date Analyzed: 03/01/2023 01:13

Con. Extract Vol.: 1 (mL)

Dilution Factor: 1

Injection Volume: 1 (uL)

GC Column: J&W DB WAX ID: 0.45 (mm)

% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_

GPC Cleanup: (Y/N) N

Cleanup Factor: \_\_\_\_\_

Analysis Batch No.: 765364

Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	21.7		5.0	3.0	1.1

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28032.D  
 Lims ID: 580-123973-C-1 MS  
 Client ID:  
 Sample Type: MS  
 Inject. Date: 01-Mar-2023 01:13:46 ALS Bottle#: 0 Worklist Smp#: 32  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 680-0084108-032  
 Operator ID: Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:12 Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B  
 Process Host: CTX1666

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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\* 4 n-Heptyl Alcohol  
 4.208 4.219 -0.011 4828113 50.0 50.0  
 8 2-(2-Butoxyethoxy)ethanol  
 8.414 8.419 -0.005 1150766 20.0 21.7

**Reagents:**

SG_GlyICV_00051	Amount Added: 10.00	Units: uL	
SG,GLY,ISTD_00106	Amount Added: 10.00	Units: uL	Run Reagent

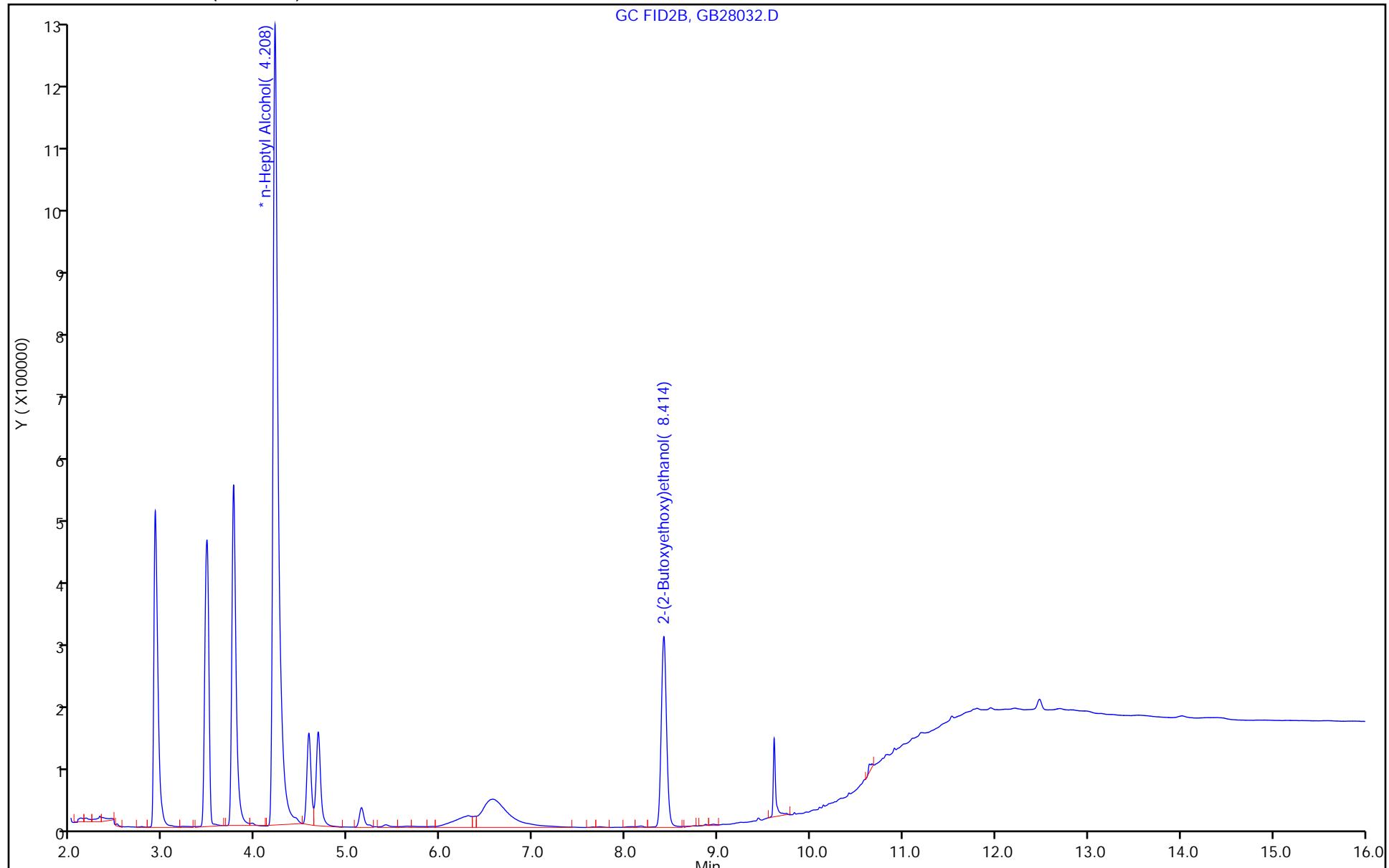
Report Date: 01-Mar-2023 15:19:21

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28032.D  
Injection Date: 01-Mar-2023 01:13:46 Instrument ID: CVGG2  
Lims ID: 580-123973-C-1 MS Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 32



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Client Sample ID: AF-RHMW03-WGN01LF-2302W3  
MSD

Lab Sample ID: 580-123973-1 MSD

Matrix: Water

Lab File ID: GB28033.D

Analysis Method: 8015C GLY

Date Collected: 02/23/2023 12:15

Extraction Method: \_\_\_\_\_

Date Extracted: \_\_\_\_\_

Sample wt/vol: 1 (mL)

Date Analyzed: 03/01/2023 01:37

Con. Extract Vol.: 1 (mL)

Dilution Factor: 1

Injection Volume: 1 (uL)

GC Column: J&W DB WAX ID: 0.45 (mm)

% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_

GPC Cleanup: (Y/N) N

Cleanup Factor: \_\_\_\_\_

Analysis Batch No.: 765364

Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	18.5		5.0	3.0	1.1

**Eurofins Savannah**  
**Target Compound Quantitation Report**

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\GB28033.D  
 Lims ID: 580-123973-C-1 MSD  
 Client ID:  
 Sample Type: MSD  
 Inject. Date: 01-Mar-2023 01:37:08      ALS Bottle#: 0      Worklist Smp#: 33  
 Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
 Sample Info: 680-0084108-033  
 Operator ID:      Instrument ID: CVGG2  
 Method: \\chromfs\Savannah\ChromData\CVGG2\20230228-84108.b\8015\_GLY\_VGG.m  
 Limit Group: 8015C\_DAI  
 Last Update: 01-Mar-2023 15:19:12      Calib Date: 23-Feb-2023 20:25:53  
 Integrator: Falcon  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230223-84021.b\GB23011.D  
 Column 1 : J&W DB WAX ( 0.45 mm)      Det: GC FID2B  
 Process Host: CTX1666

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	------------------	--------------------	-------

\* 4 n-Heptyl Alcohol  
 4.210 4.219 -0.009 5483302 50.0 50.0  
 8 2-(2-Butoxyethoxy)ethanol  
 8.413 8.419 -0.006 1123832 20.0 18.5

**Reagents:**

SG_GlyICV_00051	Amount Added: 10.00	Units: uL	
SG,GLY,ISTD_00106	Amount Added: 10.00	Units: uL	Run Reagent

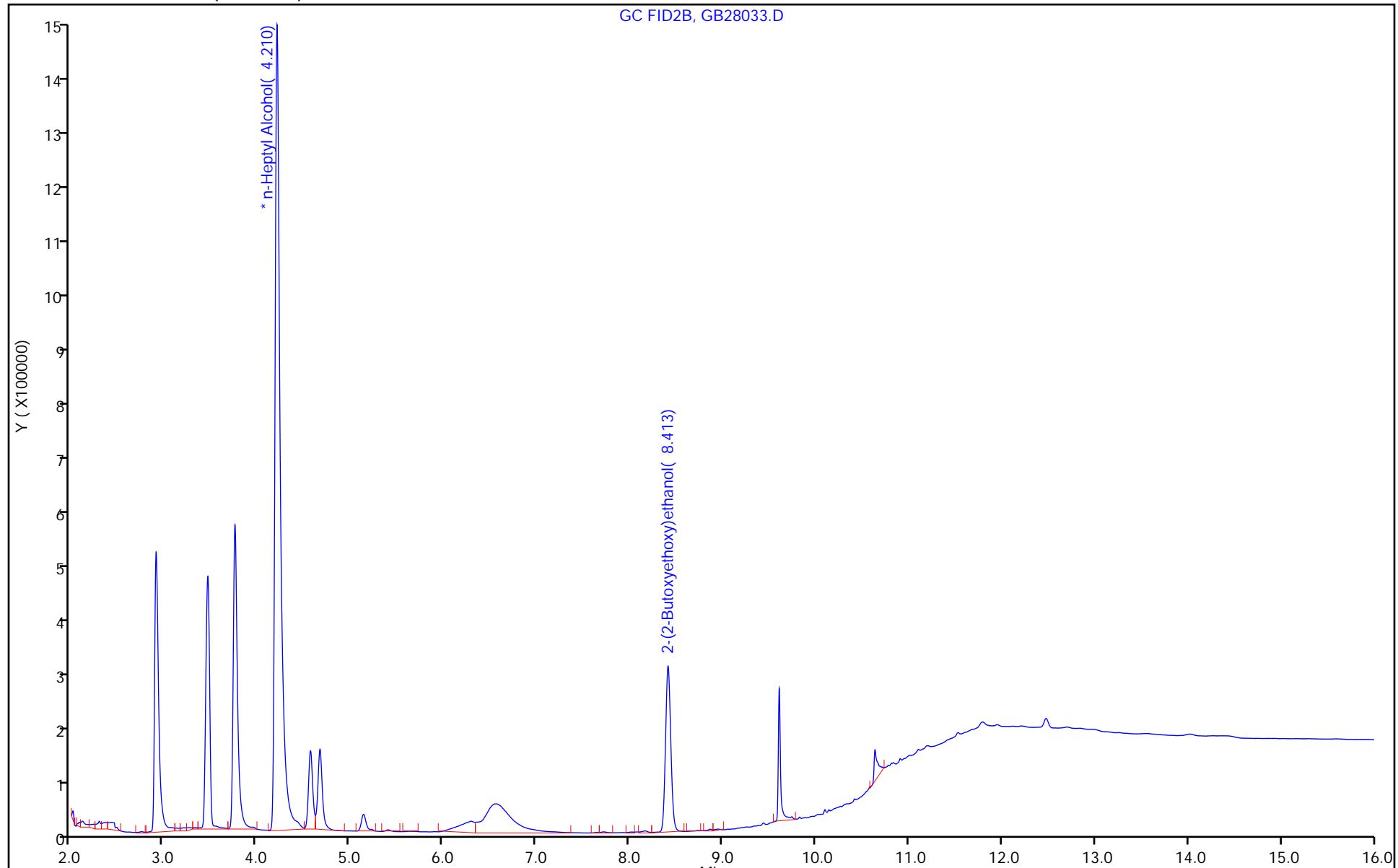
Report Date: 01-Mar-2023 15:19:21

Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Savannah

Data File: \\chromfs\\Savannah\\ChromData\\CVGG2\\20230228-84108.b\\GB28033.D  
Injection Date: 01-Mar-2023 01:37:08 Instrument ID: CVGG2  
Lims ID: 580-123973-C-1 MSD Operator ID:  
Client ID:  
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0  
Method: 8015\_GLY\_VGG Limit Group: 8015C\_DAI  
Column: J&W DB WAX ( 0.45 mm)

Worklist Smp#: 33



## GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Instrument ID: CVGG2 Start Date: 02/23/2023 18:06Analysis Batch Number: 764742 End Date: 02/24/2023 02:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 680-764742/5		02/23/2023 18:06	1	GB23005.D	J&W DB WAX 0.45 (mm)
IC 680-764742/6		02/23/2023 18:29	1	GB23006.D	J&W DB WAX 0.45 (mm)
IC 680-764742/7		02/23/2023 18:53	1	GB23007.D	J&W DB WAX 0.45 (mm)
ICIS 680-764742/8		02/23/2023 19:16	1	GB23008.D	J&W DB WAX 0.45 (mm)
IC 680-764742/9		02/23/2023 19:39	1	GB23009.D	J&W DB WAX 0.45 (mm)
IC 680-764742/10		02/23/2023 20:02	1	GB23010.D	J&W DB WAX 0.45 (mm)
IC 680-764742/11		02/23/2023 20:25	1	GB23011.D	J&W DB WAX 0.45 (mm)
ICV 680-764742/12 CCV		02/23/2023 20:49	1	GB23012.D	J&W DB WAX 0.45 (mm)
ZZZZZ		02/23/2023 21:12	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/23/2023 21:35	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/23/2023 22:46	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/23/2023 23:09	20		J&W DB WAX 0.45 (mm)
ZZZZZ		02/23/2023 23:32	100		J&W DB WAX 0.45 (mm)
ZZZZZ		02/23/2023 23:56	5		J&W DB WAX 0.45 (mm)
ZZZZZ		02/24/2023 00:19	4		J&W DB WAX 0.45 (mm)
ZZZZZ		02/24/2023 00:42	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/24/2023 01:06	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/24/2023 01:29	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/24/2023 01:52	1		J&W DB WAX 0.45 (mm)
CCV 680-764742/27		02/24/2023 02:39	1		J&W DB WAX 0.45 (mm)

## GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-123973-1  
SDG No.: \_\_\_\_\_  
Instrument ID: CVGG2 Start Date: 02/28/2023 14:40  
Analysis Batch Number: 765364 End Date: 03/01/2023 03:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-765364/5		02/28/2023 14:40	1	GB28005.D	J&W DB WAX 0.45 (mm)
LCS 680-765364/6		02/28/2023 15:04	1	GB28006.D	J&W DB WAX 0.45 (mm)
LCSD 680-765364/7		02/28/2023 15:27	1	GB28007.D	J&W DB WAX 0.45 (mm)
MB 680-765364/10		02/28/2023 16:37	1	GB28010.D	J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 17:01	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 17:24	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 17:48	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 18:11	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 18:35	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 18:58	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 19:22	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 19:45	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 20:09	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 20:32	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 20:55	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 21:19	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 21:42	1		J&W DB WAX 0.45 (mm)
ZZZZZ		02/28/2023 22:06	1		J&W DB WAX 0.45 (mm)
CCV 680-765364/26		02/28/2023 22:53	1	GB28026.D	J&W DB WAX 0.45 (mm)
ZZZZZ		03/01/2023 00:03	1		J&W DB WAX 0.45 (mm)
ZZZZZ		03/01/2023 00:26	1		J&W DB WAX 0.45 (mm)
580-123973-1	AF-RHMW03-WGN01LF-230 2W3	03/01/2023 00:50	1	GB28031.D	J&W DB WAX 0.45 (mm)
580-123973-1 MS	AF-RHMW03-WGN01LF-230 2W3 MS	03/01/2023 01:13	1	GB28032.D	J&W DB WAX 0.45 (mm)
580-123973-1 MSD	AF-RHMW03-WGN01LF-230 2W3 MSD	03/01/2023 01:37	1	GB28033.D	J&W DB WAX 0.45 (mm)
580-123973-2	AF-RHMW225401-WGN01B- 2302W3	03/01/2023 02:00	1	GB28034.D	J&W DB WAX 0.45 (mm)
580-123973-3	AF-RHMW02-WGN01LF-230 2W3	03/01/2023 02:23	1	GB28035.D	J&W DB WAX 0.45 (mm)
CCV 680-765364/37		03/01/2023 03:10	1	GB28037.D	J&W DB WAX 0.45 (mm)

## GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.: \_\_\_\_\_

Batch Number: 764742

Batch Start Date: 02/23/23 18:06

Batch Analyst: Meincke, Griffin E

Batch Method: 8015C GLY

Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00048	SG,GLY ISTD 00106	SG_GlyICV 00055		
IC 680-764742/5		8015C GLY		1 mL	50 uL	10 uL			
IC 680-764742/6		8015C GLY		1 mL	40 uL	10 uL			
IC 680-764742/7		8015C GLY		1 mL	25 uL	10 uL			
ICIS 680-764742/8		8015C GLY		1 mL	10 uL	10 uL			
IC 680-764742/9		8015C GLY		1 mL	5 uL	10 uL			
IC 680-764742/10		8015C GLY		1 mL	2.5 uL	10 uL			
IC 680-764742/11		8015C GLY		1 mL	1 uL	10 uL			
ICV 680-764742/12 CCV		8015C GLY		1 mL		10 uL	10 uL		

Batch Notes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8015C GLY

Page 1 of 1

## GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah

Job No.: 580-123973-1

SDG No.:

Batch Number: 765364

Batch Start Date: 02/28/23 14:40

Batch Analyst: Meincke, Griffin E

Batch Method: 8015C GLY

Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final Amount	SG_Gly_CAL_00048	SG_GLY_ISTD_00106	SG_GlyICV_00051		
CCVIS 680-765364/5		8015C GLY		1 mL	10 uL	10 uL			
LCS 680-765364/6		8015C GLY		1 mL	0.01 mL	10 uL			
LCSD 680-765364/7		8015C GLY		1 mL	0.01 mL	10 uL			
MB 680-765364/10		8015C GLY		1 mL		10 uL			
CCV 680-765364/26		8015C GLY		1 mL	10 uL	10 uL			
580-123973-C-1 AF-RHMW03-WGN01L F-2302W3		8015C GLY	T	1 mL		10 uL			
580-123973-C-1 AF-RHMW03-WGN01L MS F-2302W3		8015C GLY	T	1 mL		10 uL	10 uL		
580-123973-C-1 AF-RHMW03-WGN01L MSD F-2302W3		8015C GLY	T	1 mL		10 uL	10 uL		
580-123973-C-2 AF-RHMW225401-WG N01B-2302W3		8015C GLY	T	1 mL		10 uL			
580-123973-C-3 AF-RHMW02-WGN01L F-2302W3		8015C GLY	T	1 mL		10 uL			
CCV 680-765364/37		8015C GLY		1 mL	10 uL	10 uL			

## Batch Notes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8015C GLY

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# **Subcontract Data**

# **Shipping and Receiving Documents**

### **Chain of Custody Record**

### **Chain of Custody Record**



Environmental Testing  
@MPC

### **Chain of Custody Record**

**europ**fins Environment Testing  
Americas

## Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-123973-1

**Login Number:** 123973

**List Source:** Eurofins Savannah

**List Number:** 2

**List Creation:** 02/28/23 12:15 PM

**Creator:** Meincke, Griffin E

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		